# FY 2022 ATO Business Plan



# Safety

Oversee and operate the safest aerospace system in the world, all with a culture of continuous improvement

# **Expand Safety Culture**

Expand the Safety Culture Campaign across FAA and industry that integrates all aspects of Safety Culture (i.e., Just Culture, Reporting Culture, Learning Culture, Flexible Culture, and Informed Culture) to improve safety performance throughout the NAS.

### Initiative: Safety Culture Campaign across the FAA and Industry

A Safety Culture Campaign builds an environment where safety information is shared to ensure the organization as a whole understands its strengths and challenges, and empowers its members to proactively address emerging risks.

# Activity: Establish a cross-agency team to transform and support an Enterprise Safety Culture program.

Establish the organizational infrastructure across the agency to support an Enterprise Safety Culture program. Provide a forum to connect, coordinate, and collaborate on Safety Culture activities currently happening in isolation across the agency, and integrate best practices from other agencies, international organizations, industry, and academia. Establish user-centric tools and practices to identify and access the information, services, and resources needed to accomplish the mission.

### Target: Establish a cross-LOB/SO team to support collaboration.

Establish a cross-LOB/SO team to support collaboration; oversee the capture and sharing of information; and the management, evaluation, and gap analysis of Safety Culture activities across the agency.

# Target: Establish a governance structure.

Establish a governance structure, roles and responsibilities, and future activities for the Enterprise Safety Culture Team.

# **Target: Safety Culture Behaviors**

Recommend set of desired Safety Culture Behaviors to Safety Culture Steering Committee.

# **Activity: Safety Culture - Assessments**

Conduct baseline assessments of the Safety Culture across the FAA and identify success measurement mechanism.

#### **Target: Select Metrics**

Establish success measures for the ideal safety culture.

#### **Activity: Safety Culture - Workforce**

Fostering an effective Safety Culture is rooted in employee understanding, expertise, and commitment.

#### **Target: Conduct Events with Employees**

Conduct events with employees on the desired Safety Culture behaviors and safety roles and responsibilities.

#### Initiative: Risk-Based Management

Perform activities to evolve the ATO's risk based safety management system.

### Activity: Expand knowledge of Voluntary Safety Reporting Programs (VSRP)

Increase safety reporting in VSRP by 5% by expanding safety knowledge of the TSAP and ATSAP programs. This will include safety promotions, participation at the FAA Academy, Tech Ops new hire training, thereby improving the understanding of the programs purpose and use.

#### **Target: Preparation for Deployment of Revised T-SAP Automation**

Once the upgrade is completed, focus on increase of TSAP safety reporting and field personnel program knowledge, benefits and rights to ensure more active participation.

# Target: Preparation for Deployment of T-SAP Executive Support Promotional Material

Prepare for the creation and deployment of TSAP promotional video(s) and materials for NAS Tech Ops eligible personnel, to increase field awareness and show VSRP program support.

#### **Activity: Transform Quality Assurance Analysis**

Transform Quality Assurance analysis of airborne automated safety reports from a compliance-based approach to a risk based approach.

#### **Target: Expand QA Data Collection**

Incorporate taxonomy and trend data collection in the validation process.

#### Target: Fully Implement BAR and CSBR

Fully implement the BAR CSBR processes to include identification of data sources and reporting products.

#### **Activity: Evolve Quality Assurance Analysis**

Evolve Quality Assurance analysis through development of automated safety reports for surface and terrain/obstruction risks to facilitate a risk-based approach.

# **Target: Fully Implement BAR and CSBR**

Fully implement the BAR CSBR processes to include identification of data sources and reporting products.

### **Target: Terrain/Obstruction Risk Detection**

Complete development of terrain/obstruction validation process

# **Initiative: Wind Shear Detection Services (WSDS)**

Rapidly updating terminal weather observations leading to Wind Shear / Microburst detections and alerts are provided to NAS controllers by terminal weather radars and automated wind shear detection systems. Over one hundred legacy, automated wind shear detection providers at heavy air traffic volume air terminals continuously stream rapid observations, machine-to-machine, into NAS and NextGen Weather Processing Systems, Displays and NextGen User Decision Support Tools. NextGen may plan alternatives to eventually replace wind shear / microburst alert providers, yet budget and program changes to the replacements often leave indefinite, the remaining service life of legacy wind shear systems, subject to significant extensions. This initiative ensures no gaps in legacy wind shear services throughout the NextGen transition, no matter whether replacement plans and deployment schedules may change or cease altogether. Relationship to Measure: TDWR, and the WSDS portfolio (ASR-WSP, LLWAS-NE, LLWAS-RS) in total provide four wind shear detection programs that contribute to the 2015 Strategic measure by ensuring sustained service of automated wind shear / microburst detection by over one hundred automated terminal wind shear detection systems in service to nearly 90% of all commercial Part 121 flights on approach and during landing in the United States each day.

# **Activity: Wind Shear Detection Service (WSDS) - Sustainment 2**

Wind Shear Detection Service (WSDS) Work Package (WP) 1 addresses obsolescence and supportability issues plaguing Low Level Wind Shear Alerting System (LLWAS), Wind Measuring Equipment (WME), and Weather Systems Processor (WSP). The LLWAS/WME SLEP will replace several WME remote and master stations containing obsolete and unsupportable components, replace several damaged and sheltered wind sensor poles, replenish LLWAS ribbon displays, replace older broadband radios, and replenish stock levels of the ultrasonic wind sensors. The WSP Tech Refresh portion of the program will replace a critical component vital to maintaining wind shear detection service at 34 operational WSP locations and 4 support locations. The Radar Video Processor (RVP) 700 currently installed in the WSP will be upgraded to the newer RVP 900 series since the current version is no longer supported by the vendor, and failing at an alarming rate.

# Target: Wind Shear Detection Service (WSDS) - Work Package 1

Wind Shear Detection Service (WSDS) S2 Implementation Strategy and Planning Document (ISPD) submitted for signature process.

#### Initiative: Juneau Airport Wind System (JAWS) Sustainment

JAWS measures and transmits wind information to the Juneau Automated Flight Service Station (AFSS), Alaska Airlines, and the National Weather Service for weather forecasting.

#### **Activity: Juneau Airport Wind System (JAWS) Sustainment**

JAWS provides terrain induced wind and turbulence data that addresses safety of flight and decreases the probability of experiencing unnecessary weather related delays in and out of the Juneau International Airport, Alaska.

### Target: Juneau Airport Wind System (JAWS) Sustainment - CAM Goal

Complete installation of a Wind Profiler at 2nd Level Engineering at Mike Monroney Aeronautical Center (MMAC).

### Initiative: System Service Reviews (SSR) in support of Hazard Risk Mitigation

Conduct System Service Reviews (SSR) in support of Hazard Risk Mitigation.

# Activity: AJT-W support of Hazard Risk Mitigation with the completion of System Service Reviews (SSR)

AJT-W will partner with AJW-W in support of Hazard Risk Mitigation with the completion of System Service Reviews.

### **Target: System Service Reviews (SSR)**

Conduct joint System Service Reviews (SSR) with Technical Operations for air traffic events causing system outages that impact NAS operations.

### **Initiative: Support NOTAM Modernization Program**

Revise the NOTAM Policy Order through the publication of Change 2 and future publication of Change 3, which will help provide updated ICAO formatting for certain domestic NOTAMs (ICAO Phase 1). ICAO-formatted NOTAMs will be provided as an additional set of information for only those NOTAMs created in the digital AIXM format. This will help familiarize NOTAM consumers with the ICAO format in advance of the agency's planned implementation of the full ICAO format for all NOTAMs in 2024.

### Activity: Publish Change 2 of the 7930.2S NOTAM Policy Order

Provide a fully coordinated report with necessary signatures and all comments adjudicated, in order to publish Change 2 of the current 7930.2S NOTAM Policy Order.

# Target: Provide Change 2 Report of the 7930.2S NOTAM Policy Order

Aeronautical Information Services (AJV-A) will provide a fully coordinated report with necessary signatures and all comments adjudicated. This report will also be cleared by FAA legal. This publication lays the foundation for FAA's transition to ICAO in 2024. Planned publication date of December 31, 2021.

# Target: Publish Change 2 of the 7930.2S NOTAM Policy Order

Policy (AJV-P) will publish Change 2 of the current 7930.2S NOTAM Policy Order. "Notices to Airmen" will change to "Notices to Air Missions", updates to the PERM NOTAM Process, and FICON Reporting.

# Activity: Initiation of the Publication Process for Change 3 of the 7930.2S NOTAM Policy Order

AJV-A to conduct internal, initial review of the DCP for Change 3 with all affected Lines of Businesses (LOBs) in preparation of submission of the final document to AJV-P and the Formal 45-Day Review process. This publication bridges the gap for FAA's transition to ICAO in 2024. It will focus on items such as further alignment of FICON NOTAMs to the future ICAO shift, and place certain restrictions on Airspace PERM NOTAMs to conform to ICAO Standards, reducing the overall number of PERM NOTAMS.

# Target: AJV-A to Conduct Initial Review of the Document Control Process (DCP) that outlines all amendments to Change 3 of the 7930.2S NOTAM Policy Order.

AJV-A to conduct internal, initial review of the DCP for Change 3 with all affected Lines of Businesses (LOBs) in preparation of submission of the final document to AJV-P and the Formal 45-Day Review process. This publication bridges the gap for FAA's transition to ICAO in 2024. It will focus on items such as further alignment of FICON NOTAMs to the future ICAO shift, and place certain restrictions on Airspace PERM NOTAMs to conform to ICAO Standards, reducing the overall number of PERM NOTAMS.

# **Enable Emerging Entrants**

Develop a comprehensive strategy to enable the safe, timely integration of emerging entrants into the NAS to keep pace with advancing technologies and developments, while maintaining a safe and secure aerospace system that serves as a world model.

#### Initiative: Develop a Comprehensive Strategy to Safely Enable Emerging Entrants

Develop a Comprehensive Strategy to Safely Enable Emerging Entrants.

# Activity: (Regulatory): Improve decision making processes for waivers, exemptions, and authorizations

Determine ways to review applications, make determinations, and communicate requirements and decisions to stakeholders in an efficient manner related to waivers, exemptions and authorizations.

### Target: Evaluate Decision-Making Processes for Issuing Relief.

Evaluate current methods of processing waivers, exemptions, authorizations and propose recommendations for improved timeliness of decision-making.

# Activity: (Commercial space/airspace): Identify data needed for launch and reentry operations

Research proponent data to determine shortfalls or impacts to NAS operations and procedures to acquire data.

#### **Target: Conduct a Gap Analysis**

Conduct gap analysis on the data provided by the proponents to determine shortfalls impacting Commercial Space operations in the NAS and support efforts to gather launch and reentry data including mission planning.

# **Initiative: Space Integration**

Examine characteristics of space vehicle operations and determine whether changes are needed to airspace.

# Activity: Engineering and Concept Analysis for the NAS Space Integration Capability Enhancement

Identify preliminary shortfall for consideration under the next set of automation enhancements.

### Target: Space L/R ATO Activities Traceability Matrix

Conduct traceability analysis between current ATO efforts and updated Space L/R gap analysis to identify remaining gap

# Target: Concept and requirements definition readiness for NAS Space Integration Capabilities Enhancement 1(NSIC E1)

Conduct prioritization (operational and technical) of identified shortfalls to define NSIC-E1 program scope in support of March 2023 IARD

### **Activity: ATO NITRO Corporate Plan**

Define space data sharing needs and maintain alignment of ATO plans.

#### **Target: Requirements for Sharing of Space Data**

Define the Space Data framework and identify chain of decisions and information flow.

#### **Target: Update the Space Integration Roadmap**

Publish annual update to the NAS Integration of Transiting Operations (NITRO) Roadmap

#### **Target: Creating a Space Integration Roadmap Dashboard**

Create a dashboard that enables users to tailor the information to their individual needs.

### Activity: Acceptable Level of Risk (ALR) concept in the Oceanic environment

Provide Acceptable Level of Risk (ALR) standards and procedures support.

# Target: Acceptable Level of Risk (ALR) Oceanic

Support development of Acceptable Level of Risk (ALR) oceanic procedures where needed as ALR concept matures and evolves.

# Activity: Acceptable Level of Risk (ALR) Contingency Procedures

Provide Acceptable Level of Risk (ALR) standards and procedures support.

#### Target: Acceptable Level of Risk (ALR) Contingency Procedures

Support development of Acceptable Level of Risk (ALR) contingency procedures where needed as ALR concept matures and evolves.

#### Initiative: ATO UAS Services Plan Priority 2 – Enable UAS Operations At or Near Airports

Commercial UAS applications continue to create new opportunities and add significant value to airport operations. Airports will benefit greatly from current UAS use in perimeter security, facility surveying and inspection, and emergency response support. The FAA work under this priority establishes first the national policy and changes for how ATM will make informed decisions for UAS operations on movement and non-movement areas for both Part 107 and Part 91 operations. Further, under this focus area, ATO will also be determining how to utilize commercial UAS services to perform core missions. The ATO is looking to operationalize the use of commercial UAS services in the airport environment for certain functions like technical operations maintenance and infrastructure inspection. ATO will develop required processes and procedures for agency-wide use of commercial UAS vendors for flight inspections and facility maintenance inspections/surveillance of FAA towers, radars, buildings, and other assets, leveraging the development of the national on-airports policy.

# Activity: Develop concepts and use case scenarios for UAS services support in emergency and security response activities

Develop concept and conduct use cases for airport inspection-related activities with UAS. Identify required air traffic management systems/services and capabilities, describe system/service functions, define high-level functional requirements, and assess implementation options.

# Target: Develop concepts and use case scenarios for UAS services support in emergency and security response activities

Define AJW draft requirements and procedures for use of contracted UAS services to support a) infrastructure inspection functions; and b) BVLOS emergency response activities

# Activity: Operationalize UAS Services to Support ILS, VOR, & VGSI Calibration & Troubleshooting

Conduct research, development, testing and evaluation (RDT&E) to determine the feasibility and suitability of using commercial UAS to evaluate airport lights and VGSI.

# **Target: Airport Lights and VGSI Evaluation**

Deliver a status report and recommendations on the feasibility and suitability of using commercial UAS to evaluate airport lights and VGSI to the Vice President of Flight Program Operations.

# **Activity: Operationalize UAS Services to Support Limited Flight Inspection Functions**

Conduct research activities to support the use of UAS for evaluations of signals in space.

#### **Target: Limited Flight Inspection Functions**

Present interim research findings to the Vice President of Flight Program Operations on the feasibility of using UAS to achieve limited flight inspection functions for miniaturization and accuracy of navigation receivers.

### **Target: Airborne Measurements**

Present a written interim progress report on the achievement of receiver accuracy levels required for airborne measurement to the Vice President of Flight Program Operations.

#### **Target: Market Analysis**

Deliver a draft market analysis to the Vice President of Flight Program Operations detailing the availability and maturity of commercially available UAS to measure signals in space.

### **Initiative: Integrate New Entrants**

Safely and efficiently, integrate new types of operations, such as UAS and Commercial space operations, into the NAS and enable the benefits these operations will provide.

# Activity: Lead Safety Assessment of Non-Legacy Captive Carry Launch/Reentry Operations

Use Safety Management System (SMS) processes to review and provide assessments of launch/reentry operations, standards, and procedures. Non-Legacy captive carry operations include captive carry operations that may operate outside Special Use Airspace (SUA) (i.e. through Class A) during the mission.

### Target: SRMP for MVP Build 2

Conduct SRM activities as needed for MVP Build 2

# **Optimize Information to Reduce Risk**

Transform the agency's approach to assessing and managing system safety performance through enhanced access to data and analytics, inform risk-based decision making, improve existing safety metrics, and increase system safety awareness.

### **Initiative: Surface Safety Risk Reduction**

AJI will utilize the surface safety metric to: Establish consensus among Runway Safety stakeholders on a policy to assess and quantify the risk in runway safety events. Address precursors, as well as latent risks by proactively providing event trend summaries and best practices to the field.

# **Activity: Runway Safety Action Teams (RSAT)**

Enhance NAS Safety by expanding RSAT participation, and conducting special focus RSATs

# Target: Expand RSAT Participation by using FAAST Teams to reduce surface events

Conduct RSAT meetings by expanding the presence of FAAST Team participation to improve pilot participation during RSATs and reduce runway incursions at those airports

# Target: Reduce the Risk of Surface Events by Implementing Improvements and Mitigations

Conduct 9 Special Focus RSAT meetings at airports with elevated rates of wrong surface and runway incursions, monitor the effectiveness of the RSAT by tracking Runway Incursion rates and wrong surface operations, and develop best practices and propose mitigations to help reduce the rate at specified airports, and conduct 3 regional RSATs, one per Service Area.

# **Activity: Runway Safety DOT Enterprise Risk Management (ERM)**

The FAA runway safety strategy includes training, education, and awareness initiatives via structured programs, refresher courses, printed materials, electronic materials, trade and industry journal articles to maintain runway safety as a top-of-mind priority for pilots, air traffic controllers, and airport personnel. Proper airport geometry design and technological initiatives also offer tremendous promise for the improvement of runway safety and include such devices as runway status lights and cockpit moving map displays. Finally, enhancements to air traffic procedures, phraseology and systems provide controllers with better tools to keep aircraft safely separated on runways and taxiways.

### Target: "Planned" Risk Response for Runway Safety DOT/ERM

The Runway Safety Group will continue enhancement of the FAA's strategic activities, programs, and objectives associated with achieving the agency's runway safety goals through the ongoing development and implementation of the National Runway Safety Plan.

# Target: Reduce the Risk of Surface Events by Increasing Situational Awareness through Outreach and Education

The Runway Safety Group, in collaboration with the Office of Communications will develop, distribute and promote through social media 30 "From the Flight Deck" series videos (combination of airport specific and single subject videos).

# Activity: AJT-2 Support of Runway Safety Technology Program Management Integration.

In FY22, AJT-2 will support AJI in integrating Program Management of Runway Safety technologies, to include: Speech Recognition and Memory Aid Research, and, activities associated with the prevention of runway incursions utilizing Runway Incursion Prevention Situational Awareness (RIPSA) activities.

# Target: AJT-2 Support of Runway Safety Technology Program Management Integration

AJT SMEs will support NextGen's final technical requirements for solicitation and acquisition of "right-site-right-size" technologies, by providing input on the best system to deploy for Runway Incursion Prevention through Situational Awareness (RIPSA).

# **Target: AJT-2 Support of Runway Safety Technology Program Management Integration**

AJT SME will support NextGen's Final Program Plan for "right-site-right-size" by assisting in the development of the Runway Incursion Prevention through Situational Awareness (RIPSA) implementation Plan.

# Initiative: Data Visualization Analysis and Report System (DVARS)

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#### Activity: Data Visualization Analysis and Report System (DVARS) Phase 2, M08.28-06

Data Visualization Analysis and Report System (DVARS) Phase 2, M08.28-06

Target: Deliver final stakeholder demonstration of the Visualization, Analytics, and Dashboards for Efficiency Reporting (VADER) System Minimal Viable Product 1 (MVP1) product.

Deliver final stakeholder demonstration of the Visualization, Analytics, and Dashboards for Efficiency Reporting (VADER) System Minimal Viable Product 1 (MVP1) product.

Target: Complete Visualization, Analytics, and Dashboards for Efficiency Reporting (VADER) Implementation Strategy & Planning Document (ISPD).

Complete Visualization, Analytics, and Dashboards for Efficiency Reporting (VADER) Implementation Strategy & Planning Document (ISPD).

#### **Initiative: Metrics & Measurements**

Lead the ATO by producing actionable safety metrics that drive sustainable improvement in mitigations, and measuring the effect of those mitigations as they impact the NAS.

#### **Activity: Metrics and Measurement Development**

Develop User-Centered Metrics for Safety Data Stakeholders

#### **Target: Develop User Profiles**

Develop and document user profiles for Safety Data Stakeholders

#### **Target: Develop Metrics Use Cases**

Develop and document metrics use cases based on user profiles.

#### **Target: Develop Safety Metrics**

Identify, develop, and document metrics based on use cases

#### **Activity: Update Current Safety Metrics**

Incorporate new and evolving data sources into Safety Metrics

#### **Target: ARIA Airborne and Surface Pulse Metrics**

Finalize ARIA Airborne and Surface Pulse Metrics displaying out of the total risk, how often the NAS system works as designed (safety barriers such as direct human intervention, airspace and procedural design, or premeditated mitigations successfully prevent projected risk events from occurring).

#### Target: Incorporate ARIA data into the Surface Safety Metric

Update the SSM to include ARIA detected surface incidents (similar to ARIA airborne incidents included in the ASM).

#### **Activity: Surface Safety Metric (SSM)**

"The Surface Safety Metric represents potential for fatal accidents on the runway or taxiway surface. A reduction in the Surface Safety Metric score is an indication of overall safety performance improvements for the flying public in the surface environment."

### **Target: Manage Commercial Surface Safety Risk Index**

Maintain the weighted surface safety risk index at or below 0.35 per million operations for Commercial Aviation.

### **Target: Manage Non-Commercial Surface Safety Risk Index**

Maintain the weighted surface safety risk index at or below 0.60 per million operations for Non-Commercial Aviation.

#### **Initiative: Advanced Data Systems and Analytics**

Identification of hidden aviation risk by creating a better understanding and application of available aviation data. Laying the foundation for machine learning and artificial intelligence to become a smarter organization.

#### **Activity: Advanced Analytics**

Develop advanced analytics to support effective risk management.

#### **Target: Safety Metrics Deployment Readiness**

Through collaboration with stakeholders, establish Airborne Safety Metric (ASM) Target, deploy ASM in Enterprise Information Management (EIM) production environment, including ARIA data incorporation

#### **Target: Evaluate and Refine Safety Metrics**

Apply the refined SSM weights and change existing yearly target as required in order to assign consistent severity index across airborne and surface environments.

#### **Target: NAS Safety Performance**

Document the existing safety performance of the NAS to inform future adjustments/refinements of the ATO and other Lines of Business Target Level of Safety (TLS), and collaborate with AJI-311 to implement the research result.

#### **Target: Analyze and Quantify New Procedures**

Collaborate and document findings with other ATO service units on ALR deployments and refinements in radar and non-radar environments.

#### **Target: Conduct Machine Learning**

Investigate and implement machine-learning models to detect various types of events by leveraging MITRE voice data.

#### **Activity: Refine and Implement Analytics Tools**

Refine and implement data and analytics tools to support new entrants effective risk management.

#### **Target: Provide Accessible Metrics Through Intelligence Displays**

Expand the deployment of Business Objects report sharing capabilities to production environment and establish governance.

# Target: Document, Develop, and Implement Modernized Safety Data Collection Tools

Establish sustainment plan for existing legacy data collection tools and implement the next generation accident package generator (APG) web based data collection capability.

# **Target: CEDAR Sustainment**

Document CEDAR sustainment plan and FALCON SBA integration. These activities will include planned system changes to QA tracker / SIRG capabilities, contingency plan enhancement, and Safety Tool Personnel addition/backfill, and training.

### **Activity: Safety Tools Functionality Enhancements**

Enhance safety tools platforms to incorporate innovative and modern data sources

#### **Target: Safety Tools Functionality Enhancement for ARIA**

Implement new Safety Tools functionality of Surface ARIA and associated dashboards to both the live CEDAR Production environment and OARS

### **Initiative: Top 5**

A quantifiable list of hazards that contribute to the highest risk in the national airspace system. It is the culmination of the ATOs proactive safety management activities valuing input from the frontline employees, deploying technology to gather data, improving analysis to identify risk and embracing correction to implement risk mitigations.

### Activity: Top 5 CAP Implementation Through Collaboration Across the ATO

Implement approved mitigation activities in association with ATO's Top Five (5) identified trending safety issues in the National Airspace System (NAS).

# Target: Influence and Prepare Stakeholders while Defining CAP Activities for Inclusion in the CAP Document

Develop a draft CAP document and initiate approval of the updated plans, which define activities for mitigating the Top 5 upcoming fiscal year.

#### **Target: Top 5 CAP Implementation Through Collaboration Across the ATO**

Implement 85% of approved mitigation activities in association with ATO's Top Five (5) identified trending safety issues in the National Airspace System (NAS).

#### **Activity: Support for ATO Top 5**

Support the completion of approved activities to address the top five (5) identified trending safety issues in the NAS and the development/approval of activities to be completed in future fiscal years.

# **Target: AJM-2 Support for Top 5**

Implement/complete as needed, approved corrective action and monitoring plan activities to address the top five (5) identified trending safety issues in the NAS.

#### Target: AJM-3 Support for the ATO Top 5

Implement/complete as needed, approved corrective action and monitoring plan activities to address the top five (5) identified trending safety issues in the NAS.

#### Target: AJM-4 Support for the ATO Top 5

Achieve Final Investment Decision (FID) for ADS-B Enhancements Program.

### **Target: AJR-B Support for Top 5**

Implement/complete as needed, approved corrective action and monitoring plan activities to address the top five (5) identified trending safety issues in the NAS.

#### Target: AJT-W Support for the ATO Top 5

Implement/complete as needed, approved corrective action and monitoring plan activities to address the top five (5) identified trending safety issues in the NAS.

### Target: AJT-E Support for the ATO Top 5

Implement/complete as needed, approved corrective action and monitoring plan activities to address the top five (5) identified trending safety issues in the NAS.

#### Target: AJT-C Support for ATO Top 5

Implement/complete as needed, approved corrective action and monitoring plan activities to address the top five (5) identified trending safety issues in the NAS.

#### Target: AJT-2 Support for the ATO Top 5

Implement/complete as needed, approved corrective action and monitoring plan activities to address the top five (5) identified trending safety issues in the NAS.

#### Target: AJW-1 Support for the ATO Top 5

Implement/complete as needed, approved corrective action and monitoring plan activities to address the top five (5) identified trending safety issues in the NAS.

#### Target: AJV-A Support for ATO Top 5

Implement/complete as needed, approved corrective action and monitoring plan activities to address the top five (5) identified trending safety issues in the NAS.

#### **Target: AJV-P Support for ATO Top 5**

Develop and submit for coordination and publication Air Traffic Procedures Bulletins (ATPB) in support of communication and safety campaigns implemented for those ATO Top 5 Corrective Action Plans that identify air traffic controller improvement.

#### **Initiative: Aerospace Medicine Safety Information System (AMSIS)**

The Office of Aerospace Medicine (AAM) is responsible for: the medical certification of airmen; the medical clearance of air traffic control specialists; oversight of aviation industry drug and alcohol testing programs; designation, training and oversight of aviation medical examiners; FAA employee substance abuse testing; airmen aviation physiology and survival training and education; the FAA Employee Health Awareness Program; and aerospace medicine and human factors research. These programs are carried out by AAM at FAA Headquarters, the Civil Aerospace Medical Institute, in the regional Aerospace Medicine divisions and at the three Industry Drug Abatement Compliance and Enforcement Centers. AAM has designed, developed and implemented information systems to efficiently process and manage safety, health and research information collected by FAA's regulatory programs. However, to ensure that these systems are maintained and kept up-to-date and/or replaced as necessary, lifecycle funding is needed. AAM requires future systems funding to re-engineer AAM safety program business processes; design and develop new information systems architecture; and to design, procure and deploy next generation information systems. The Aerospace Medicine Safety Information System (AMSIS) Program is designed to support existing systems, technology, and develop replacement systems in the future.

# Activity: Investment Analysis for Aerospace Medicine Safety Information System, A35.01-01

Aerospace Medicine Safety Information System (AMSIS) system development activities to support progress toward implementation milestones.

# Target: Finalize the Aerospace Medicine Safety Information System (AMSIS) Phase 1 Bridge Funding Request JRC briefing.

Finalize the Aerospace Medicine Safety Information System (AMSIS) Phase 1 Bridge Funding Request JRC briefing.

Target: Submit Final Risk Adjusted Lifecycle Cost Point Estimate to IP&A in support of the Aerospace Medicine Safety Information System (AMSIS) Phase 1 Baseline Change Decision (BCD).

Submit Final Risk Adjusted Lifecycle Cost Point Estimate to IP&A in support of the Aerospace Medicine Safety Information System (AMSIS) Phase 1 Baseline Change Decision (BCD).

Target: Aerospace Medicine Safety Information System (AMSIS) Phase 1 - Complete primary software development of Medical Certification and Clearance baseline functionality.

Aerospace Medicine Safety Information System (AMSIS) Phase 1 - Complete primary software development of Medical Certification and Clearance baseline functionality.

# Initiative: System Approach for Safety Oversight (SASO)

The SASO Program is a multi-phase effort that transforms FAA Flight Standards Service (FS) and aviation industry business processes to a national standard of system safety based upon International Civil Aviation Organization (ICAO) Safety Management System (SMS) principles. Phase 1, a planning and engineering phase, tested system safety concepts, specifically with respect to the air carrier industry. Phase 2 implemented the Safety Assurance System (SAS), a risk-based decision making tool incorporating system safety principles to assist in regulatory oversight responsibilities of the aviation industry. Phase 3 expands the SAS functional capabilities by adding Activity Recording (replacing PTRS for all 14 CFR parts) and Office Workload List (OWL), a workload management tool; develops the Risk Assessment Profile Tool used to quantify safety risk and assist in prioritizing oversight; automates the application process; implements coordination in oversight of repair stations; extends safety oversight of 14 CFR parts 141, 142, and 147 schools; and includes industry outreach and familiarization efforts to more fully synchronize FS and industry in understanding system safety.

# Activity: Deploy System Approach for Safety Oversight (SASO), A25.02-02

System Approach for Safety Oversight (SASO) deployment to last production site and prepare for Functional Release 1.

Target: System Approach for Safety Oversight (SASO) Phase 3 - Last Production Site Initial Operational Capability (IOC).

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Target: System Approach for Safety Oversight (SASO) Phase 3 - Complete Doctorate Risk Profile Assessment Tool (RPAT) Course □ All Sites.

System Approach for Safety Oversight (SASO) Phase 3 - Complete Doctorate Risk Profile Assessment Tool (RPAT) Course 

All Sites.

Activity: System Approach for Safety Oversight (SASO) Phase 4, A25.02-03

System Approach for Safety Oversight (SASO) Phase 4, A25.02-03

Target: System Approach for Safety Oversight (SASO) Phase 4 - Complete the Enhanced Flight Standards Automation System (eFSAS) IT Joint Application Development (JAD).

System Approach for Safety Oversight (SASO) Phase 4 - Complete the Enhanced Flight Standards Automation System (eFSAS) IT Joint Application Development (JAD).

Target: System Approach for Safety Oversight (SASO) Phase 4 - Complete the Mobile Devices/IT Enhancements (Mobile/IT) IT Joint Application Development (JAD).

System Approach for Safety Oversight (SASO) Phase 4 - Complete the Mobile Devices/IT Enhancements (Mobile/IT) IT Joint Application Development (JAD).

Initiative: Configuration, Logistics, and Maintenance Resource Solutions (CLMRS)

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**Activity: Configuration Management Automation (CMA) Phase 1** 

Configuration Management Automation (CMA) Phase 1

Target: Configuration Management Automation (CMA) Phase 1 - Complete IFSv10 Upgrade.

Configuration Management Automation (CMA) Phase 1 - Complete IFSv10 Upgrade.

Target: Configuration Management Automation (CMA) Phase 1 - Complete Build 1 Operational Testing (OT).

Configuration Management Automation (CMA) Phase 1 - Complete Build 1 Operational Testing (OT).

Target: Configuration Management Automation (CMA) Phase 1 - Complete Build 1 Development Testing (DT).

Configuration Management Automation (CMA) Phase 1 - Complete Build 1 Development Testing (DT).

Activity: Automated Maintenance Management System (AMMS), M07.05-01

Automated Maintenance Management System (AMMS), M07.05-01

Target: Automated Maintenance Management System (AMMS) - Complete Business Case Document (BCD).

Automated Maintenance Management System (AMMS) - Complete Business Case Document (BCD).

Target: Automated Maintenance Management System (AMMS) - Complete development efforts in TechOps Activities Portal (TAP) Connected for Alert Functionality so that ANG can begin the Developmental Test & Evaluation (DT&E).

Automated Maintenance Management System (AMMS) - Complete development efforts in TechOps Activities Portal (TAP) Connected for Alert Functionality so that ANG can begin the Developmental Test & Evaluation (DT&E).

Target: Automated Maintenance Management System (AMMS) - Complete Final Execution Plan.

Automated Maintenance Management System (AMMS) - Complete Final Execution Plan.

#### **Initiative: Analytical Tool Development**

Facilitate the development, design, integration, and implementation of tools to improve analytical capabilities by supporting risk-analysis, assessment, tracking, and monitoring processes.

Activity: Operational Analysis And Reporting System (OARS) Phase 1, M08.32-04

Operational Analysis And Reporting System (OARS) Phase 1, M08.32-04

Target: Operational Analysis And Reporting System (OARS) Phase 1 - Component Development Testing (DT) completed.

Operational Analysis And Reporting System (OARS) Phase 1 - Component Development Testing (DT) completed.

# Activity: Operational Analysis and Reporting System (OARS) Phase 2 Planning, M08.32-06

Provide program management support for the OARS program.

# Target: Complete Operational Analysis And Reporting System (OARS) Phase 2 Implementation Strategy & Planning Document (ISPD).

Complete Operational Analysis And Reporting System (OARS) Phase 2 Implementation Strategy & Planning Document (ISPD).

#### **Initiative: Logistics Center Support System (LCSS)**

The Logistics Center Support System (LCSS) is a mission support IT procurement that reengineers and automates the FAA's logistics management processes. The program modernizes the FAA's supply chain management by replacing the 20-year old Logistics and Inventory System (LIS).

#### Activity: Logistics Center Support System (LCSS), M21.04-01

Logistics Center Support System (LCSS)

### Target: Logistics Center Support System (LCSS) Full Operational Capability (FOC).

Logistics Center Support System (LCSS) Full Operational Capability (FOC).

# Target: Logistics Center Support System (LCSS) - Conduct a successful ANG validation for F&E Project Material Management (PMM).

Logistics Center Support System (LCSS) - Conduct a successful ANG validation for F&E Project Material Management (PMM).

# Target: Logistics Center Support System (LCSS) Enhancements - Reduce Department of Defense (DoD) customer part re-orders to less than 5% (technical).

Logistics Center Support System (LCSS) Enhancements - Reduce Department of Defense (DoD) customer part re-orders to less than 5% (technical).

# Target: Logistics Center Support System (LCSS) Enhancements - Reduce Department of Defense (DoD) customer part re-orders to less than 5% (non-technical).

Logistics Center Support System (LCSS) Enhancements - Non-technical errors will not exceed 5% of the total order count over a thirty day period.

#### **Initiative: Aeronautical Information Management (AIM)**

The AIM Modernization program will provide aviation users with digital aeronautical information that conforms to international standards and supports Next Generation Air Transportation System (NextGen) objectives.

#### Activity: Federal Notices to Airmen (NOTAM) System (FNS) Sustainment

Federal Notices to Airmen (NOTAM) System (FNS) Sustainment

#### Target: Federal Notices to Airmen (NOTAM) System (FNS) Sustainment - CAM Goal

Complete Development Testing (DT) for Federal Notices to Airmen (NOTAM) System (FNS) Sustainment Release 1.

# Target: Federal Notices to Airmen (NOTAM) System (FNS) Sustainment

Achieve Final Investment Decision (FID) for Federal Notices to Airmen (NOTAM) System (FNS) Sustainment.

### Activity: Federal NOTAM System (FNS) publishes Notices to Airmen (NOTAMs)

The Federal NOTAM System (FNS) publishes Notices to Airmen (NOTAMs), which provide pilots, operators and aircrews with essential information involving the abnormal status of a component of the National Airspace System (NAS). Many components within the FNS/USNS system are running on old hardware and improvements in the system architecture are needed.

### Target: Federal NOTAM System (FNS) publishes Notices to Airmen (NOTAMs)

Award a new Federal Notices to Airmen (NOTAM) System (FNS) Contract.

#### **Activity: Federal Notices to Airmen (NOTAM) System (FNS) Operations**

Federal Notices to Airmen (NOTAM) System (FNS) Operations

#### Target: Federal Notices to Airmen (NOTAM) System (FNS) Operations

Activate Closure/Restriction Notices Diagram Automation (CNDA) at 100 airports.

#### Target: Federal Notices to Airmen (NOTAM) System (FNS) Operations

Deploy Federal Notices to Airmen (NOTAM) System (FNS) OPS Release 2.19 to include International Civil Aviation Organization (ICAO) Phase 1.

#### Target: Federal Notices to Airmen (NOTAM) System (FNS) Operations

Complete Aeronautical Information System Replacement (AISR) Terminal Installations (9 sites remain).

#### Activity: Aeronautical Information Management Modernization (AIMM) Phase 2

Aeronautical Information Management Modernization (AIMM) Phase 2

#### Target: Aeronautical Information Management Modernization (AIMM) Phase 2

Deliver first Aeronautical Common Services (ACS) Operations & Maintenance (O&M) Software (SW) release to address critical issues as well as address user reported issues.

#### Activity: Aeronautical Services/ Operations & Maintenance (O&M)

Aeronautical Services/ Operations & Maintenance (O&M)

#### Target: Aeronautical Services/ Operations & Maintenance (O&M)

Award new Operations & Maintenance (O&M) Contract for Aeronautical Services.

# Activity: Obstruction Evaluation/Airport Airspace Analysis (OE/AAA)

The Obstruction Evaluation/Airport Airspace Analysis evaluates all structures that may affect the national airspace system for the safety and efficient use of the navigable airspace.

### **Target: Obstruction Evaluation/Airport Airspace Analysis (OE/AAA)**

Implement interactive customized data dashboards for Obstruction Evaluation/Airport Airspace Analysis (OE/AAA) system users that visually track, analyze and display metrics and key data points relevant to processing/handling aeronautical studies.

# Activity: Military Airspace Data Entry (MADE)/Special Use Airspace Management System (SAMS)

Military Airspace Data Entry (MADE)/Special Use Airspace Management System (SAMS)

# Target: Military Airspace Data Entry (MADE)/Special Use Airspace Management System (SAMS)

Complete upgrades of the FAA Oracle Java 1.8 and Fuse Enterprise Service Bus (ESB) software for the SWIM Operational Repository (OR) Services, SWIM Static Repository (SR) Client, and DoD Web Service software packages.

#### **Activity: National Airspace System Resource (NASR)**

NASR is FAA's repository for NAS aeronautical data, including Airspace resources and FAA facilities. It provides access to AIXM and text versions of aeronautical data subscriptions along with daily reports on updates to users.

### **Target: National Airspace System Resource (NASR)**

National Airspace System Resource (NASR)/Electronic National Airspace System Resource (eNASR) is to baseline a Concept of Operations (CONOPS).

# **Activity: Central Airspace Reservation Function (CARF)**

Central Airspace Reservation Function (CARF)

# **Target: Central Airspace Reservation Function (CARF)**

Install Central Airspace Reservation Function (CARF) hardware in the lab at the Tech Center.

# **Activity: Sector Design and Analysis Tool (SDAT)**

Sector Design and Analysis Tool (SDAT)

# **Target: Sector Design and Analysis Tool (SDAT)**

Deploy Release 9.3 that adds the ability to add new facilities to Sector Design and Analysis Tool (SDAT).

# **Activity: Temporary Flight Restriction (TFR)**

Temporary Flight Restriction (TFR)

# **Target: Temporary Flight Restriction (TFR)**

Install Temporary Flight Restriction (TFR) hardware in the lab at the Tech Center.

# **Initiative: Common Support Services Weather (CSS-Wx)**

Common Support Services - Weather (CSS-Wx) will be the single source of FAA weather information and establishes enterprise level common support services within the National Airspace System (NAS). CSS-Wx Improves weather information management and user access; provide new interface standards and formats.

### Activity: Common Support Services Weather (CSS-Wx)

Common Support Services - Weather (CSS-Wx) will be the single source of FAA weather information and establishes enterprise level common support services within the National Airspace System (NAS). CSS-Wx Improves weather information management and user access; provide new interface standards and formats.

#### Target: Common Support Services - Weather (CSS-Wx) - CAM Goal

Release 1 Integration Testing completed.

#### **Initiative: Next Generation Weather Processor (NWP)**

NextGen Weather Processor (NWP) Work Package 1 Increases NAS efficiency and safety by improving weather product generation, translation, and display for aviation weather users

### Activity: NextGen Weather Processor (NWP) Work Package 1

NextGen Weather Processor (NWP) Work Package 1 Increases NAS efficiency and safety by improving weather product generation, translation, and display for aviation weather users

# Target: NextGen Weather Processor (NWP) Work Package 1 - CAM Goal

NextGen Weather Processor (NWP)-Aviation Weather Display (AWD) Software completed.

#### **Initiative: Potential/Emerging Safety Issues**

Improve the ability to identify and assess safety risks through advanced analytics.

#### **Activity: Potential/Emerging Safety Issues**

Improve the ability to identify and assess safety risks through advanced analytics.

#### Target: Potential/Emerging Safety Issues (AJI-3)

Screen potential/emerging safety issues through the FAA Safety Issue Identification and Management Process and submit an annual FAA safety issue screening report to the FAA SMS Executive Council by September 30, 2022.

#### **Initiative: ATO Data Evolution**

Build a federated approach to the provision of data capabilities supported by the necessary cultural transformation, partnerships, and technology

# **Activity: Data Evolution Leadership Team (DELT)**

The Data Evolution Leadership Team is an executive level team that will provide a collective voice and focused approach to identifying and solving ATO data challenges. The DELT will also work towards building a federated approach to the provision of capabilities supported by the necessary cultural transformation, partnerships, and technology.

### **Target: Create Data Initiatives Roadmap**

Create an ATO roadmap of data initiatives through the formation of an associated ATO service unit executive team and working groups

#### Activity: ATO Data and Analytics Modernization (ADAM)

AJT Business Analytics supports Air Traffic Services and the Air Traffic Organization (ATO) by establishing a working group to network, share information, and define capabilities and requirements to improve collaboration, which will reduce duplication of effort and ensure accurate and consistent results. ATO Data and Analytics Modernization (ADAM) group is fully established as of FY20 and leads several ATO-wide activities. ADAM is now integrated into the ATO's executive level Data Evolution Leadership Team (DELT) as the management level workgroup to support ATO's data transformation on behalf of the COO.

### **Target: Manage ATO Critical Data Sources**

Work across ATO service units through the DELT to prioritize ATO Critical Data Sources so that the most important sources are ingested into EIM and made available for ATO use. Coordinate actions to maximize benefits to ATO.

# Target: Coordinate across ATO service units to develop content for Consolidated Agency Resource Library (CARL)

Complete a review and redesign of ATO's CARL content.

#### **Initiative: Human Performance**

Work collaboratively across the ATO to enhance the human performance contribution to the safety and efficiency of NAS operations.

### **Activity: Human Performance Management**

Conduct ATO-wide Human Performance Management activities to identify, understand and mitigate human factors and human performance issues across the ATO to increase the safety and efficiency of the human element within the ATC operation.

# **Target: Human Performance Operational Portal**

Develop a portal/initiative for the dissemination of Human Performance Information and Best Practices with the Operational workforce and collection of Human Performance Issues.

# **Target: Development of Tower and En Route Training Standards**

Lead the development, testing and validation of the Tower and En Route Training Standards as part of a national development and roll out plan.

#### **Target: Human Performance Management Roundtable**

Establish an ATO-wide Human Performance Strategic Plan and Human Performance Order through collaboration and coordination with the Human Performance Management Roundtable

# **People**

Strengthen our current and future aviation workforce by holding ourselves accountable, developing our people and planning for the aviation workforce of the future

# Maximize the Benefits of Diversity, Equity, Inclusion, and Accessibility

Develop and implement a comprehensive strategy to ensure a more thoughtful, robust workforce environment that embraces the diverse talents of employees, ensures fair and equitable treatment, and advances broader gains in diversity, equity, inclusion, and accessibility.

#### Initiative: EEO/Diversity and Inclusion Action Committee (EAC)

Utilize the EEO Action Committee (EAC) to collaborate and support a diverse and inclusive workplace with existing employee workgroups and LOBs/SOs to create an inclusive work environment.

# Activity: Ensure a Diverse and Inclusive Workforce - Reasonable Accommodations

ACR will lead collaboration with LOBs/SOs to foster an inclusive work environment throughout FAA that promotes opportunities for all, including traditionally underrepresented groups such as Hispanics, Women, and People with Disabilities (PWD) / People with Targeted Disabilities (PWTD) by improving the Reasonable Accommodation interactive process.

### **Target: ATO - Reasonable Accommodations**

Ensure that at least 90% of reasonable accommodation requests are processed within 25 business days or less.

# **Activity: Ensure a Diverse and Inclusive Workforce - Mediation**

Managers engage in the mediation/facilitation process when requested.

# **Target: ATO - Mediation**

Ensure that 75% of managers engage in mediation when requested by employees.

# Initiative: Train Managers and Employees across the Agency in Diversity, Equity, Inclusion, and Accessibility (DEIA)

ACR will lead collaboration with LOBs/SOs to train managers and employees in DEIA.

# Activity: ACR will Lead Collaboration with LOBs/SOs to Train Managers and Employees in DEIA

Ensure at least 75% of managers and 25% of employees from each LOB/SO attend a minimum of one training course from a menu of DEIA training courses such as Harmony & Respect, Reasonable Accommodations, Preventing Bullying, Equity, Hiring People with Disabilities (PWD) / Targeted Disabilities (PWTD), and Transgender.

# Target: ATO - Train Managers and Non-Managerial Employees in a Minimum of One DEIA Training Course

Ensure at least 75% of managers and 25% of employees attend a minimum of one training course from a menu of DEIA training courses such as Harmony & Respect, Reasonable Accommodations, Preventing Bullying, Equity, Hiring People with Disabilities (PWD) / Targeted Disabilities (PWTD), and Transgender.

# **Transform Agency to Meet Evolving Workforce**

Transform agency workforce policies to proactively and collectively address/manage the realities and expectations of the future. Create flexible workspace and tools that reflect diverse workstyles/organizational needs to best serve the agency and workforce.

#### **Initiative: Curriculum Transformation**

Continue to enhance Curriculum Transformation by updating and improving training modality and tools. Develop new curriculum as identified.

# **Activity: Asynchronous Learning**

Convert Instructor Led Training concepts course to asynchronous web-based training.

#### **Target: Convert Radar Concepts Course to Asynchronous Web-Based**

Complete the conversion of Radar Concepts to asynchronous web-based training format and schedule a First Course Conduct.

#### **Activity: Out-Of-Agency Training**

Expand the Out of Agency Training portfolio for Technical Operations.

#### **Target: Vendor Delivery of Boiler and Chillers Fundamentals**

Conduct formal market research for vendor delivery of Boiler Fundamentals and Chiller Fundamentals.

# Target: Identify DOD Locations and delivery options.

Identify DOD locations and delivery options that are capable and willing to support equipment training activities.

#### **Activity: Proficiency Training**

Develop models, plans and processes to combat skill decay and support career long competency within Technical Operations

#### **Target: Proficiency Training Model and Implementation Plan**

Develop a process to identify critical tasks, and a proficiency training model with a preliminary proficiency training implementation plan.

#### **Target: Course Modularization Training Model**

Develop a training model which incorporates the course modularization concept.

#### **Activity: Engineering Curriculum Roadmap**

Develop Curriculum Roadmaps for student enrollment.

#### **Target: Complete Phase 2 Curriculum Roadmap for Electronic Engineers (855)**

Complete Phase 2 (Engineering Concepts and Discipline Specialization) Curriculum Roadmap for 855 (Electronic Engineers).

#### Target: Complete Phase 1 Curriculum Roadmap for 850 (Electronic Engineers)

Complete Phase 1 (Core Engineering and NAS Foundations) Curriculum Roadmap for 850 (Electrical Engineers).

#### Activity: Voltron Blended Social Learning (Proof of Concept)

Convert and Validate a Blended Social Learning Course.

### **Target: Conversion of Voltron Course**

Convert resident instructor lead course into the Voltron Blended Social Learning modality (Proof of Concept) and schedule a First Course Conduct.

#### **Activity: Conversion of Course Material to Virtual Delivery**

Complete conversion of the course material to virtual delivery for RTF (Terminal Basic Radar Training) course.

#### **Target: RTF (Terminal Basic Radar Training) Course Material**

Convert RTF course materials for virtual delivery.

# Activity: Change 1 of FAA Order 3120.4R Air Traffic Technical Training

Complete Draft Final Draft of Change 1 of FAA Order 3120.4R Air Traffic Technical Training.

# Target: Complete First Draft of Change 1 of FAA Order 3120.4R Air Traffic Technical Training.

Complete first draft and send out to stakeholders for comment.

# Target: Adjudicate Comments of Change 1 of FAA Order 3120.4R Air Traffic Technical Training.

Adjudicate comments and prepare final draft.

# Activity: Update Existing UAS Courses/Briefings with Policy Changes as Identified Integrate new policy changes in existing UAS courses.

# Target: Identify new directives and/or policy changes to be incorporated into identified UAS courses and briefings.

Identify existing UAS courses and briefings that require updates to conform to current policies and directives.

# Target: Incorporate new directives and/or policy changes into identified UAS courses and briefings.

Prioritize the identified curriculum and incorporate the changes into the top 50% of Curriculum.

#### Activity: Create New UAS Training Materials as Required

Create new UAS training materials to ensure the safe integration of UAS operations in the NAS.

# Target: Develop new UAS training materials required for the field to efficiently and safely integrate UAS operations.

Develop one UAS course, briefing, or other training material required for field use and conduct appropriate validation event.

#### **Initiative: PMO Acquisition Workforce**

Ensure the PMO has the staffing and skill mix to successfully manage NextGen and other major acquisitions by implementing training, developing and certifying personnel in key acquisition professions. The PMO has an Acquisition Workforce goal tracked at the AJM-0 level to be sure the Program Managers are obtaining and maintaining the necessary certification requirements for their positions. The PMO works with AAP-300, Acquisition Career Management Division, to get monthly status and updates for the overall PMO goal. AJM-1 will continue to track/monitor/status the AJM-0 level PMO Acquisition Workforce goal. For FY22, the PMO Leadership Team has indicated (in coordination with Jan Smith, the AJM-0 Workforce Development Mgr) that each Directorate will track the certifications internally.

# **Activity: PMO Acquisition Workforce**

Attain and maintain certification requirements of program managers (PMs) and contracting officers.

#### **Target: AJM-2 Acquisition Workforce**

Provide monthly status on the Level III certification of Program Managers responsible for managing all Office of Management and Budget (OMB) major programs in the portfolio.

### **Target: AJM-3 Acquisition Workforce**

Provide monthly status on the Level III certification of Program Managers responsible for managing all Office of Management and Budget (OMB) major programs in the portfolio

#### **Target: AJM-4 Acquisition Workforce**

Provide monthly status on the Level III certification of Program Managers responsible for managing all Office of Management and Budget (OMB) major programs in the portfolio.

#### **Initiative: PMO Integrated Services & Analysis**

PMO Integrated Services & Analysis

#### **Activity: Integrated Resources Management**

Integrated Resources Management

#### **Target: Financial Integration Team**

Build a formulation repository to ensure knowledge management/knowledge transfer that impacts operational efficiency and workforce development.

#### **Target: Financial Integration Team**

Ops Revalidation - to review and revalidate Operations cost estimates after Final Investment Decision (FID).

### **Target: Business Integration Team**

Customer Outreach - to train, communicate, and inform PMO staff and managers on new financial processes, budget highlights, orders and guidance.

### **Target: Business Integration Team**

Establish Community of Practice core group: establish a cross-directorate team.

### **Target: Business Integration Team**

Program Support Services Outreach - to design scope, materials, and content to be shared with the PMO management and Technical Officer Representatives (TOR).

### **Target: Business Integration Team**

Program Support Services (PSS) Business Processes - to establish repeatable business processes and metrics to increase visibility and consistency to the PSS contract.

### **Activity: Acquisition Support & Analytics**

**Acquisition Support & Analytics** 

#### Target: Program Health Management (PHM) Dashboard Enhancements

Integrate program level data into the Program Health Management (PHM) dashboard.

#### **Target: Socializing Program Health Management (PHM)**

Conduct a series of roadshow briefings on best practices and use of programmatic metrics with each directorate in the PMO (AJM-2/3/4).

# Target: Collaborate with the Earned Value Management (EVM) Focal Point on updating EVM Guidance

Collaborate with Earned Value Management (EVM) focal point to update the FAA EVM System Description.

# Target: "Program Acquisition Support (PAS) - Sherpa Outcomes/ Next Steps"

Conduct at least four AJM-121 Program Acquisition Support (PAS) kickoffs.

# **Target: Program Acquisition Support (PAS) - Socialization**

Conduct four Program Acquisition Support (PAS) outreach briefings to Directorate Group Managers.

# Target: Program Acquisition Support (PAS) - Right-Sizing the Investment Analysis (IA) Process

Develop updated PMO guidance on AMS/JRC artifact signature process.

# Target: Program Acquisition Support (PAS) - Right-Sizing the Investment Analysis (IA) Process

Conduct data collection on staffing the Investment Analysis team and develop recommendations.

# Target: Program Acquisition Support (PAS) - Right-Sizing the Investment Analysis (IA) Process

Prioritize and implement at least one recommendation from initial Investment Analysis team staffing analysis.

# Target: Program Acquisition Support (PAS) - Right-Sizing the Investment Analysis (IA) Process

Develop list of best practices for programs approaching non-AMS JRC decision points (Strategies, Status, etc.).

# Target: Program Acquisition Support (PAS) - Right-Sizing the Investment Analysis (IA) Process

Coordinate with IP&A/JRC Secretariat's office on non-AMS decision point guidance.

#### **Activity: Planning, Analysis & Integration**

Planning, Analysis & Integration

# **Target: Portfolio Integration Planning**

Improve the consistency of the PMO's program integration through the use of decision support tools (i.e., Corporate Work Plan and Tableau).

### **Target: PMO/Service Area Outreach**

Facilitate communications and understanding between the PMO and the Service Areas.

#### **Target: Organizational Development/ Management Goal**

Enhance Stakeholder communication by establishing an AJM-13 services portfolio by functional area.

#### **Target: Organizational Development/ Management Goal**

Promote functional cross training and increase collaboration within AJM-13.

# Target: Information Systems Security Engineering (ISSE) Plan of Action & Milestones (POAMs)

Increase the Program Office's awareness of program risks if cyber security activities are not planned for early in the acquisition lifecycle.

#### Target: PMO Safety Management System (SMS) Communication Plan

Enhance PMO Stakeholder engagement and collaboration by developing and socializing a PMO Safety Management System (SMS) Communication Plan.

### **Target: PMO Safety Staff Standard Operating Procedure**

Develop and issue a PMO Safety Staff Standard Operating Procedure to help the PMO Safety Staff continue its mission to promote the FAA SMS within the PMO.

### **Target: Human Factors Webinar**

Design and facilitate a 1-hour webinar to help programs understand and ensure they incorporate human factors early in the AMS lifecycle.

# Target: Requirements Management Plan (RqMP) Workshop

Increase the PMO's knowledge of its Requirements Management Plan (RgMP) policy.

# Target: Directorate Support Library (DSL) and Configuration Management (CM) Accounting Tool

Develop the Directorate Support Library (DSL) and Configuration Management (CM) Status Accounting Tool.

# Target: Risks, Issues, and Opportunities (RIO) Standard Operating Procedures (SOP) Process Flow Charts and Tier 1 RIO Intake Process

Increase the effectiveness of the PMO's Tier 1 Risks, Issues, and Opportunities (RIO) Management Board (RMB) by applying lessons learned. Increase the efficiency of the PMO's Tier 1 RIO RMB by defining the RIO intake process.

#### Target: Risks, Issues, and Opportunities (RIO) Dashboard Workshop

Increase the PMO's Risks, Issues, and Opportunities (RIO) Management best practices by using PMO Tools.

### **Target: Bowtie Workshop**

Increase the Identification of Risks, Issues, and Opportunities (RIO) in the PMO by providing a "Using the Bowtie Analysis Technique in ARM" Workshop.

# **Target: RIO Workshops**

Increase the PMO's knowledge of its Risk, Issues, and Opportunities (RIO) Plan and Standard Operating Procedure (SOP).

# **Develop an FAA Employee Lifecycle Management Approach**

Develop an FAA Employee Lifecycle Management Approach that promotes career opportunities, growth, and wellness through restructured recruitment and hiring; and continuous employee investment, development, and training towards the health of the agency.

#### **Initiative: AJI Employee Development**

Educate, prepare, and grow AJI leaders from within.

#### **Activity: Developmental Resources and Programs**

Provide AJI Workforce Development resources and programs.

#### **Target: Measure Results**

Develop data collection tools and metrics for evaluating the effectiveness of developmental opportunities and communications.

#### **Target: Developmental Training and Seminars**

Deliver training and seminars for management and staff in accordance with plans.

#### **Target: Develop Contracting Specialists**

Expand team capabilities by increasing the COR certification by one level of at least two team members by the end of FYQ2

# Initiative: AJG-P Organizational Development and Effectiveness – Develop a Workforce for a Modern Operation

Organization Development is a strategy intended to change the beliefs, behavior, values, culture and structure of organizations so that they can better adapt to new technologies, workplace requirements and challenges. Business Acumen and Technical knowledge are key to empowering our workforce. Organizational Development methods are used to improve Organizational Effectiveness. Effective organizations create results, and exhibit strengths in key areas – leadership, decision making and structure, people, work processes and systems, and culture. Effective organizations deliver results.

# **Activity: Training and Growth [Education]**

To support Individual Development Plans, the directorate will provide periodic training opportunities to support employee development and learning.

### **Target: Development Plan and Execution**

Develop a new FY training plan for ATO People Services organization and tie/reference IDPs to requested training for individual employee training requests.

# **Activity: Organizational Structure and Culture [Communication]**

The organizational identity is constantly underlined by a number of intentional actions and constant communication, across all levels.

# **Target: Directorate Strategy and Communication**

Hold semiannual People Services Management Strategic Meetings with group managers. Hold at least bimonthly directorate Town Hall meetings, with agenda items gathered from managers and employees. Facilitate Director/Deputy Director participation in two group manager meetings with the teams to discuss strategic planning, work items and address questions as a group.

### **Activity: Business Office Management [CORE WORK - Service Delivery]**

AJG-P Management, Budget, Performance Management, Strategic Initiatives, Business Plan, eLMS, priority planning, Meetings (Staff, 1 on 1 & Manager Meetings), and Contracts management in conjunction with designated financial analyst/COR.

# **Target: Business Office Management**

Work with AJG-P Management Team to perform AJG-P management functions and meet or exceed all performance goals to include Budget, Performance Management, Strategic Initiatives, Business Plan, eLMS, priority planning, Meetings (Staff, 1 on 1 & Manager Meetings), and Contracts management in conjunction with designated financial analyst/COR.

### **Activity: Directorate Business Process Management [Continuous Improvement]**

Proactively identify, analyze and improve existing business processes within the ATO People Services directorate.

### **Target: Directorate Process Improvement Project Identification**

Choose next set of business processes with at least one (1) per Group, establish workgroup teams and initiate business process improvement activities, with the intent of expanding efforts to additional employees.

# **Target: Continuous Process Improvement Strategy for Directorate**

Status active process improvement efforts at least quarterly (includes new projects identified in 22Pu.6D1 as well as any remaining projects from the previous fiscal year), report out results upon project completion, and outline sustainment plans to continually improve newly documented processes.

### **Target: Performance Measurement & Reporting Strategy for Directorate**

Gather and document measurement and reporting strategies for process improvement efforts in 22Pu.6D2. Determine if measurements would be beneficial to dashboard and/or scorecard reporting for internal and/or external use.

# Initiative: ATO Policy Oversight Services - Develop a Workforce for a Modern Operation

Implementation of Policy and Organizations, Performance Management (includes Valuing Performance) and Recognition, Correspondence, Records, and Directives Management, Time & Attendance, VLTP support, Telework Coordinator.

# Activity: ATO Performance Management and Maintenance [CORE WORK - Service Delivery]

ATO Performance Management and Maintenance.

# **Target: FY21 Final Ratings**

Ensure at least 90% of final ratings are completed for ATO employees in each of the following systems: Valuing Performance (VP), Performance Management (PMAS), and Executive Performance Agreements (USAP) for FY21 with the final ratings and discussions signed off.

# **Target: FY22 Performance Plans**

Ensure at least 80% of initial performance plans are completed for ATO employees in each of the following systems: Valuing Performance (VP), Performance Management (PMAS), and Executive Performance Agreements (USAP) for FY22.

### **Target: FY22 Mid-cycles**

Ensure at least 80% of ATO employees have mid-cycles completed in each of the following systems: Valuing Performance (VP), Performance Management (PMAS), and Executive Performance Agreements (USAP) for FY22.

### **Target: ATO Training for Performance Management Systems**

Conduct/facilitate/communicate training throughout the ATO for performance management programs and systems quarterly. Establish plan to communicate VPS sunset and integration into PMAS.

### Target: Process internal/external ATO awards and Length of Service (LOS) Awards

Ensure Length of Service (LOS) certificates are accurately processed by due date according to Agency policy. Establish process for electronically disseminating Length of Service (LOS) Awards in conjunction with AHR. First milestone is planned for March 31, 2022.

### **Target: Internal and External Awards**

Ensure internal and external awards are executed by due date with one week lead-time for approval. Update and publish calendar of activities for external awards which provides lead time for participation and approvals. Provide information and tracking for the internal AJG Coin program on a monthly basis.

### **Target: Provide OBIEE reports**

Develop standard reports and schedule for dissemination to stakeholders in AJG-P to assist with analysis of data such as employment histories, separations, furlough codes, etc. Ad hoc reports provided within 2-3 working days.

# Activity: Perform ATO Policy Oversight Services Group Core Activities [CORE WORK - Service Delivery]

Review CASTLE, LDR and Telework entry activities on bi-weekly basis. Coordinate AJG correspondence for review and approval. Provide information and schedules for records within the ATO. Provide Directives management.

### Target: Review CASTLE, LDR and Telework activities on bi-weekly basis

Ensure 90% of CASTLE activities are completed biweekly. Implement telework requests within 1 working day of receipt. Monitor LDR compliance and assure ATO contributes to 98% completion Agency-wide on a monthly basis. Establish guide for standardized usage of LDR codes throughout AJG. Initial proposal is due by December 31, 2021.

#### Target: Provide information and schedules for records within the ATO

Develop tools to explain records management process in ATO. Participate in Agencywide records management efforts as defined corporately (e.g., targeted Region/Service Area analysis, etc.). Develop guidance for retention of records in the telework/remote environment. Initial proposal is due by January 31, 2022.

#### **Target: Automated Response for Directives**

Deliver quarterly analysis to refine the automated response for Directives - due one week after each quarter. Process 90% of Directives received through automated system. Establish standard operating procedure for Directives - SOP draft due April 2022; final due June 2022.

### **Target: Support of Key AHR Programs**

Provide support to intern programs by facilitating the Minority Serving Institutions (MSI). Develop and implement procedures for acquiring and hosting MSIs. Initial proposal is due by January 31, 2022.

Serve as facilitator of information regarding work-life balance programs. Review, and analyze opportunities for customization of work-life balance programs within the ATO. Activity ongoing with completion by due date.

# Activity: Reorganization/Realignment Change Process across ATO [CORE WORK - Service Delivery]

Align ATO reorganization/realignment change process with Agency edicts. Facilitate implementation of Agency human resource policies throughout the ATO.

#### **Target: Revise and Implement JO 1100**

Revise and implement JO 1100 to produce specific functional descriptions to the directorate-level for organizations in ATO.

### **Target: Organizational Changes Portal Used for ATO**

Quarterly analysis to refine information and education on the use of organizational changes portal for use throughout ATO, to include linked systems.

# Target: Special Projects such as VERA/VSIP, ETTRA, Furlough Codes

Develop and implement quality control initiatives and lessons learned for special project efforts such as VERA/VSIP, ETTRA, and Furlough Codes.

#### Target: Coordinate AJG correspondence and AHR policies for review and approval

Develop and implement procedures for efficient flow of Agency edicts within the ATO. Disseminate draft policies for review within 1 business day. Conduct policy conferences for edicts which have significant impact on the ATO.

#### Initiative: HQ Administrative Services Group - Develop a Workforce for a Modern Operation

Support ATO's operational focus by delivering new efficiencies in the preparation and routing of personnel action paperwork, in supporting managers in hire selection and in producing internal personnel reports. Support ATO and FAA efforts to increase workforce diversity.

# Activity: Standardize and optimize Administrative Services Group support to ATO Service Units [Communication]

Develop standardized metrics, reports, support aids and customer meeting schedules for consistent support to ATO Service Units.

### **Target: Develop Service Unit Standardized Reports**

Utilizing feedback from FY21, continue to mature scorecard for each service unit, including establishing new touch points with AJG-R and RMG offices.

### **Target: Develop Service Unit Outreach Plans**

Support ATO service units by working with them to identify and achieve strategic hiring goals.

#### **Target: Establish an AJG Onboarding Program**

Develop a consolidated Onboarding format for new AJG employees.

# Activity: Perform Additional HQ Administrative Services Group Core Activities [CORE WORK - Service Delivery]

Ensure timely personnel actions and cash/time off awards processing for ATO.

### **Target: Personnel Actions Processing**

Consistent with Air Traffic Organization (ATO) and FAA policies and hiring needs, review referral lists, make selections, and onboard employees within specified timelines to achieve the hiring goals.

#### **Target: Cash and Time Off Awards Processing**

Consistent with FAA policies, process cash and time off awards received from Service Unit customers within specified timelines to meet end of fiscal year targets.

# Activity: Implement Strategic Diversity, Equity, Inclusion & Accessibility (DEIA) Activities for ATO [Communication]

Identify recommended activities from the DEIA Strategic Plan and develop a strategic approach to implementation.

# Target: Implement Strategic Diversity, Equity, Inclusion and Accessibility (DEIA) Activities for ATO

Work with ATO service units to identify activities to be implemented in FY22 in order to achieve service unit Diversity, Equity, Inclusion and Accessibility goals.

#### **Target: Conference Participation**

Participate in and support ATO executive leadership participation in at least two EA conferences that have a focus on Diversity, Equity, Inclusion and Accessibility.

# **Activity: Perform Additional HQ Administrative Services Group Core Activities**[Communication]

Perform quarterly reviews of metrics specific to Service Units and develop recommendations for process improvement and potential efficiencies. Hold strategic consultations with primary stakeholder to review.

#### **Target: Process Improvement and Stakeholder Consultation**

Perform quarterly review of metrics specific to strategic hiring and personnel actions processing to develop recommendations for process improvement and potential efficiencies. Hold strategic consultations with primary stakeholder to review.

### **Target: Process Improvement and Stakeholder Consultation**

Review quarterly DEI&A scorecard metric specific to each Service Unit and develop recommendations to achieve their DEI&A goals. Hold strategic consultations with primary stakeholder to review.

# Initiative: Technical Workforce Planning - Develop a Workforce for a Modern Operation ATO Technical Workforce Planning.

# Activity: Air Traffic Controller Selection, Onboarding and Placement [CORE WORK - Service Delivery]

Administer selection, onboarding and placement for new ATCS students.

# **Target: Air Traffic Controller Specialists (ATCS) Hiring**

Consistent with the Air Traffic Services (ATS) hiring needs, review referral lists, make selections, and onboard Air Traffic Controller Specialists (ATCS), both experienced (Track 2) and non-experienced (Track 1) within specified timelines to achieve the ATS hiring goals.

# **Target: Placement for FY22 FAA Academy ATCS Graduates**

Facilitate placement for all FY22 FAA Academy successful ATCS graduates and all Track 2 Specialized Experience selectees.

# **Target: Placement Process for FY22 FAA Academy ATCS Graduates**

Review the academy placement process to consider # of facilities offered, optional placements, and OCONUS placements.

# **Target: Retired Military Controller Vacancy Announcement**

By March 31, 2022, review results from FY21 RMC announcement and determine if the process yielded an acceptable number of candidates.

# **Target: Retired Military Controller Vacancy Announcement**

By March 31, 2022, provide recommendation to AJT if an RMC announcement is needed. If needed, by July 31, 2022, identify facilities and post announcement.

# **Target: Recruiting**

Enhance the qualification review and selection process for Previous Experience Air Traffic Controller Specialists (ATCS) by partnering with key stakeholders to include AHR and Air Traffic Services to improve new hire success while maintaining adherence to OPM Qualification Standards for ATCS.

# Target: Incorporate Flight Service Station Employees into the NCEPT

Work with stakeholders to implement a FSS NCEPT as either a part of the AJT NCEPT or as a stand alone event.

#### Target: Incorporate Flight Service Station Employees into the NCEPT

Provide training to AJR FSS on the use of Staffing WorkBook and the process to upload ERR's into the system.

# Target: Review/Revise SOP for the NCEPT

Implement NCEPT Playbook to include a run of show to improve consistency and transparency of the process among stakeholders.

#### **Target: Participate in the Collaborative Resource Workgroup**

Support the Collaborative Resource Workgroup (CRWG), encourage quarterly communication and participate in all scheduled CRWG Meetings.

#### **Activity: Validate the ATC Priority Placement Process [Continuous Improvement]**

Lead a cross service unit stakeholder group to validate and/or update the Priority Placement Tool (PPT) criteria.

#### **Target: Outline existing criteria**

Outline existing criteria used by the PPT to generate placement lists.

# **Target: Solicit feedback**

Conduct outreach and feedback session to identify potential areas of improvement in the PPT.

#### **Target: Develop requirements and test**

Develop requirements documentation for potential revisions to the PPT and run PPT based on new criteria.

#### **Target: Provide recommendation**

Develop recommendation for revised PPT and provide to AJT for concurrence and implementation.

# Activity: Airway Transportation System Specialist Hiring and Position Management [CORE WORK - Service Delivery]

Support ATO Technical Operations in achieving their technical hiring target and effective position management.

#### **Target: Hiring Process**

Facilitate ATSS new hire process based on AJW Service Area provided hiring plans.

#### **Target: Employee Requested Reassignment (ERR)**

Continue to document and develop new ATSS 2101 ERR process.

### **Activity: AJW Technical Workforce Staffing [Continuous Improvement]**

Assist AJW with Technical Workforce staffing activities at the national level.

# **Target: Hiring Plan**

Provide analysis and support updates to AJW FiT submissions.

### **Target: Reporting Capability**

Enhance reporting to include additional staffing information.

#### Activity: Staffing WorkBook Enhancements [Automation]

Enhance the performance and increase the reliability of Staffing Workbook.

#### **Target: Additional Source Data**

Continually review opportunities for additional source data and add two additional sources to the SWB database.

#### Target: Additional QA / QC

Implement more QA/QC to increase accuracy and reliability of employee specific data elements.

#### **Target: Expand functionality of Staffing Workbook**

Incorporate eAwards and Staffing Management Tool into SWB.

#### **Activity: APAT 2.0 [Automation]**

Incorporate APAT 2.0 into Staffing Workbook.

#### **Target: Identify users and requirements**

Review requirements gathered during FY21 and validate through user focus groups to include participation from AJG Directorates.

#### **Target: Transition to AJR Server**

Service and Security - Transition SWB server from AJI to AJR and complete the Moderate Risk Security assessment.

#### **Target: Define and Prototype**

Transition APAT to Staffing Workbook and initiate testing.

#### **Target: Communication and Training**

Develop and implement communication and training schedule.

#### **Target: Implement APAT in Staffing Workbook**

Launch APAT in SWB

## Activity: Perform Additional Technical Workforce Planning Group Core Activities [Communication]

Quarterly review metrics specific to Service Units and develop recommendations for process improvement and potential efficiencies. Hold strategic consultations with primary stakeholder to review.

#### **Target: Process Improvement and Stakeholder Consultation**

Quarterly review metrics specific to AJT and develop recommendations for process improvement and potential efficiencies. Hold strategic consultations with primary stakeholder to review.

#### **Target: Process Improvement and Stakeholder Consultation**

Quarterly review metrics specific to AJW and develop recommendations for process improvement and potential efficiencies. Hold strategic consultations with primary stakeholder to review.

#### **Target: Process Improvement and Stakeholder Consultation**

Quarterly review metrics specific to ATC placements and Academy student supervision and develop recommendations for process improvement and potential efficiencies. Hold strategic consultations with primary stakeholder to review.

#### **Target: Process Improvement and Stakeholder Consultation**

Quarterly review metrics specific to SWB, APAT, and Business Objects and develop recommendations for process improvement and potential efficiencies. Hold strategic consultations with primary stakeholder to review.

#### Initiative: Integrated Talent Management – Develop a Workforce for a Modern Operation

Provide integrated talent management support to the ATO that addresses critical talent issues for the Service Units, to include: customized leadership development, career and succession planning programs and services, including some low to no-cost development opportunities. Collaborate with internal and external partners and stakeholders to leverage ATO and corporate programs and services to provide the right skills to the right people at the right time to meet the ATO's tactical and strategic needs. Provide consultation and technical subject matter expertise to ATO executive leadership and their supporting management teams on 11 Collective Bargaining Agreements (CBAs) covering 18 bargaining units and over 25,000 employees. Ensure labor relations/agency policies are applied consistently throughout the Agency by providing technical expertise on the application of the ATO CBAs to other lines of business and staff offices to solve a variety of complex issues involving; Civil Rights, EEO, Security, Human Resources, Labor Relations, and Aerospace Medicine.

### Activity: ATO Real-time, Critical and Evolving Issues

Collaboratively address real-time, critical and evolving issues within the ATO in the area of labor relations with stakeholders and partners to include: collective bargaining agreement negotiation, implementation and interpretation, generation and communication of memorandums of understanding and agreement, coordination and tracking of national union representatives and subject matter experts, onsite employee support with CISM and CISD services, and leading interest-based problem solving efforts across the ATO.

# Target: Coordinate Critical Incident Stress Management (CISM) Program including Critical Incident Stress Debriefing (CISD) support for Air Traffic Services and Technical Operations Services

Lead collaborative efforts to proactively manage the common disruptive physical, mental, and emotional factors that an employee may experience after a critical incident (aviation disaster with loss of life, death of a coworker, terrorism, bomb threats, exposure to toxic materials, prolonged rescue or recovery operations or natural disasters). Support efforts to ensure annual and one time training is provided to peer de-briefers as required by the CBAs.

#### **Target: High Visibility Reporting**

Provide a high visibility report at least monthly to ATO DCOO / VPs of AJT and AJW to ensure consistent communication on labor relations concerns that have a significant impact to the ATO.

#### **Target: Article 114 (Collaboration) Reporting**

Provide monthly reporting to the ATO COO / VPs on the status of National Representative Agreements established to support improvements and modernizations to the National Airspace System (NAS).

# Target: Support the delivery of Succeeding in Your First Year (SYFY) / Operations Manager Leadership Development Program - Air Traffic (OMLDP-AT) and Operations Supervisor Workshop (OSW)

Identify, develop, and maintain a sustainable pipeline of facilitators to support the delivery of the NATCA-specific Technical Labor module for all of the Succeeding in Your First Year (SYFY) workshop deliveries in FY22. Identify, develop, and maintain a sustainable pipeline of facilitators and SMEs to support the development and or delivery of Operations Manager Leadership Development Program - Air Traffic (OMLDP-AT) workshops. Identify, develop, and maintain a sustainable pipeline of facilitators to support the delivery of the Technical Labor module for all Operations Supervisor Workshops (OSW).

#### Target: Article 13 (NAS Modernization) / Subject Matter Expert (SME) Reporting

Provide monthly reporting to AJW senior leadership and their intact management teams on the labor impacts and support of National Airspace System (NAS) modernization efforts.

# Target: Support the delivery of Succeeding in Your First Year (SYFY) / Operations Manager Leadership Development Program - Technical Operations (OMLDP-TO) and Front Line Managers Operational Workshops (FLMOW)

Identify, develop, and maintain a sustainable pipeline of facilitators to support the delivery of the PASS-specific Technical Labor module for all of the Succeeding in Your First Year (SYFY) workshop deliveries in FY21. Identify, develop, and maintain a sustainable pipeline of facilitators and SMEs to support the development and or delivery of Operations Manager Leadership Development Program - Technical Operations (OMLDP-TO) workshops. Identify, develop, and maintain a sustainable pipeline of facilitators to support the delivery of the Technical Labor module for all Front Line Managers Operational Workshops (FLMOW).

# Activity: Lead Collective Bargaining Agreement negotiation and training efforts for the ATO. Support ATO Senior Leadership in the Pre-Arbitration Review (PAR) and the quarterly PASS Grievance Resolution Meetings.

Lead and/or support ATO efforts to negotiate Collective Bargaining Agreements (CBAs) including training and implementation. Provide refresher training on CBAs that were extended for multiple years i.e. NATCA Slate book.

#### **Target: PASS Collective Bargaining Agreement (CBA) Negotiations**

Support CBA negotiations for the Professional Aviation Safety Specialists (PASS) ATO CBA including training (if required) and implementation.

# Target: Collective Bargaining Agreement (CBA) refresher training for ATO managers

Support design and complete delivery of CBA refresher training for ATO Managers at the request of senior leadership including training for AJT Managers on the National Air Traffic Controllers Association (NATCA) slate book.

# Target: Support ATO Senior Leadership in the Pre-Arbitration Review (PAR) and the quarterly PASS Grievance Resolution Meetings

Support ATO Senior Leadership in the Pre-Arbitration Review (PAR) and the quarterly PASS Grievance Resolution Meetings. Ensure meeting minutes and decisions are captured and distributed internally to Technical Labor within 2 weeks after the meeting to ensure consistency across the NAS.

### **Activity: Deliver Career Planning and Professional Development Solutions**

Deliver career planning and professional development programs and services that meet the critical development needs of the ATO to include support for the ATO Career Services Center (CSC) and the ATO Career Planning Program (ATO-CPP). Deliveries of programs and services are subject to availability of funds.

# Target: Deliver Career Services Center (CSC) / Career Planning Program (ATO-CPP) Training Events

Deliver a minimum of 35 training events, including webinars, presentations, workshops, and related events supporting the ATO Career Services Center (CSC) and the ATO Career Planning Program (ATO-CPP).

#### **Target: Implement ATO Career Kiosk Lite**

Implement career kiosk lite as denoted in approved white paper. Develop a delivery plan and delivery process. Initiate actual deliveries and identify participants.

#### Target: Streamline ATO's eLMS Administrative Access Process

Improve the eLMS administrative access request process and application form. While ensuring AJG's responsibilities are aligned with other SU/LOB's efforts. Develop a communication campaign to share information with ATO service units. Key components of this initiative include:

- Establishing a QMS Work Instruction with standardized and repetitive outcomes;
- Increasing efficiency by streamlining the application form to meet current needs;
- Providing ATO gateway oversight to eLMS and HCMS access;
- Ensure adherence to cybersecurity protocols;
- Provide oversight of who has access to these critical systems;
- Limit access to true needs and minimum levels to complete mission requirements;
- Provide a best practice for other LOB's to follow, currently a generic template and guidance is the standard.

#### **Target: Increase Training Events Participation**

Increase participation in ATO Career Services Center (CSC) training events, webinars, and kiosks to a minimum of 1,200 participants in FY22.

#### **Target: ATO Learning and Development Resource Guide**

Provide at least three quarterly revisions to the ATO Learning and Development Resource Guide. Each Quarterly update to include: ensuring all links are functional, POCs are revised, and Stakeholder feedback is sought for all program content, and new programs are included at the scheduled revision points.

### **Target: Career Planning Tool (CPT) New Position Development**

Implement a new job analysis methodology and add a minimum of two (2) new positions to the Career Planning Tool (CPT).

#### **Target: Interview Stream Tool (IST) Updates**

Add a minimum of 10 behavioral-based interview questions to the Interview Stream Tool (IST).

# Target: Deliver Reliable Service of the Career Planning Tool (CPT) and Succession Planning Tool (SPT)

Ensure reliability of the ATO Career Planning Tool (CPT) and Succession Planning Tool (SPT) - accessed via the myATOcareer.faa.gov web site - and ensure accessibility is provided to the ATO workforce for a minimum of 98% of the fiscal year.

#### **Activity: Deliver Leadership Development Solutions**

Deliver leadership development programs and services that meet the critical development needs of the ATO to include: Leaders Teaching Leaders (LTL), Operations Manager Leadership Development Program - Air Traffic (OMLDP-AT), Operations Manager Leadership Development Program - Technical Operations (OMLDP-TO), and Succeeding in Your First Year (SYFY). Deliveries of programs/services are subject to availability of funds.

#### **Target: Deliver Leaders Teaching Leaders (LTL)**

- (a) Deliver Leaders Teaching Leaders (LTL) facilitator training nationwide to support inperson and virtual delivery of FY22 LTL curriculum.
- (b) Ensure at least 95% of reportable ATO districts hold local LTL sessions through analysis of submitted rosters.

# Target: Deliver the Operations Manager Leadership Development Program - Air Traffic (OMLDP-AT)

Deliver a minimum of ten (10) Operations Manager Leadership Development Program - Air Traffic (OMLDP-AT) workshops.

# Target: Deliver the Operations Manager Leadership Development Program - Technical Operations (OMLDP-TO)

Lead the design and delivery of a minimum of four (4) Operations Manager Leadership Development Program - Technical Operations (OMLDP-TO) workshops.

#### Target: Develop and Deliver Succeeding in Your First Year (SYFY)

Deliver a minimum of 12 Succeeding in Your First Year (SYFY) workshops.

### **Activity: Deliver Succession Planning Solutions**

Deliver succession planning programs and services that meet the critical development needs of the ATO, to include: the Air Traffic Leadership Development Program (ATLDP), the Technical Operations Leadership Development Program (TOLDP), and the ATO Succession Planning Program (ATO-SPP). Deliveries of programs/services are subject to availability of funds.

#### **Target: Deliver the Air Traffic Leadership Development Program (ATLDP)**

Deploy the Air Traffic Leadership Development Program (ATLDP) to two (2) cohorts.

# Target: Deliver the Technical Operations Leadership Development Program (TOLDP)

Deploy the Technical Operations Leadership Development Program (TOLDP) to two (2) cohorts.

#### **Target: Deliver the ATO Succession Planning Program (ATO-SPP)**

Deploy the ATO Succession Planning Program (ATO-SPP) to 1 cohort (year 1 activities supporting development of 1 talent pool).

#### **Activity: Deliver Learning and Evaluation Services**

Deliver services to support the deployment and continuous improvement of ATO employee development programs. Deliveries of programs/services are subject to availability of funds.

#### **Target: Review Level 1 Evaluations**

Review Level 1 evaluations for all applicable deliveries at the group-level quarterly and provide a report to the AJG-L Director. Management activities to include: review of summary evaluation results (issues/trends); recap actions taken in response to evaluation feedback (continuous improvement); and confirm best practices/expectations for future evaluation efforts (survey items, administration and reporting timelines/protocol, support for facilitator development and program management, support for learner engagement).

Lead evaluation continuous improvement efforts, to include: facilitate structured Quarterly Evaluation Reviews to inform strategy and decision-making; increase engagement with Employee Development Cadres to improve the value of evaluations to support facilitators, program leaders, and designers; and explore additional opportunities to use evaluation data to support programs and relationship management/communication with senior leaders, stakeholders, customers, and learners.

# Target: Support deployment of Collective Bargaining Agreement (CBA) refresher training for ATO managers

Partner with AJG-L1 to design and provide delivery support as necessary for CBA refresher training for ATO Managers at the request of senior leadership, including training for AJT Managers on the National Air Traffic Controllers Association (NATCA) slate book. Support areas include: program/project management, instructional systems design, and production.

#### Initiative: ATO Organizational Effectiveness – Develop a Workforce for a Modern Operation

Working collaboratively with Management Services (AJG) senior leadership to design, plan and implement solutions that improve their service delivery, organizational culture and overall performance for the ATO.

### Activity: ATO Collaboration and Organizational Development Programs and Services [Core Work]

Provide ATO-wide support with organizational development activities as core work.

#### **Target: Collaboration Programs and Services**

Provide at least 50 collaboration consultations, alignments, engagements, trainings and development sessions to at least 750 participants in a blended learning model that may include virtual and/or in-person interaction.

#### **Target: Organizational Development Programs and Services**

Provide at least 50 organizational development workshops, trainings, strategic facilitations, consultations, engagements, trainings, assessments and/or development/coaching sessions to at least 750 participants in a blended learning model that may include virtual and/or in-person interaction.

#### **Activity: Coaching Program [Continuous Improvement]**

Increase the operational impact of the Coaching Program.

#### **Target: Increase the Operational Impact of the Coaching Program**

Provide targeted coaching for up to 30 NAS facility employees in an effort to increase the operational impact of the Coaching Program. Gather client feedback on program effectiveness and assess the need for future enhancements.

#### Initiative: ATO Employee Engagement - Develop a Workforce for a Modern Operation

Promote ATO Employee Engagement across Service Units.

#### **Activity: ATO Employee Engagement [Communication]**

Promote ATO Employee Engagement efforts across Service Units.

#### **Target: ATO Employee Engagement**

Lead the ATO Employee Engagement Captains by defining, promoting and executing FAA Employee Engagement strategies. Facilitate ATO Captains meetings. Represent the ATO at AHR's Community of Practice forums. Deliver Employee Engagement results to ATO leadership.

#### **Target: ATO Employee Engagement**

Lead the ATO Employee Engagement wider scope that includes the Organizational Development programmatic approach, Federal ViewPoint Survey launch activities, and develop a strategy for analyzing and releasing ATO-wide results and recommendations. Deliver feedback to Service Units, including the Leadership Teams.

#### **Activity: Management Services Employee Engagement [Communication]**

Management Services Employee Engagement Captains collaboratively review the plan of activities, execute and provide monthly reporting.

#### **Target: Management Services Employee Engagement Strategies**

Create the Service Unit Action Plan for specific strategies to improve the ATO Employee Engagement Index (EEI).

#### **Target: Management Services Employee Engagement Activity Reporting**

Execute the planned strategies to improve Employee Engagement and report on monthly progress.

#### **Activity: Mission Support Services Employee Engagement**

Mission Support Services Employee Engagement Captains collaboratively review the plan of activities, execute and provide monthly reporting.

#### **Target: AJV Employee Engagement Strategies**

Review the Service Unit Action Plan with specific strategies to improve the ATO Employee Engagement Index (EEI).

#### Target: AJV-A Employee Engagement Activity Reporting

Execute the planned strategies to improve Employee Engagement and report on monthly progress.

#### **Target: AJV-I Employee Engagement Activity Reporting**

Execute the planned strategies to improve Employee Engagement and report on monthly progress.

#### **Target: AJV-P Employee Engagement Activity Reporting**

Execute the planned strategies to improve Employee Engagement and report on monthly progress.

#### **Target: AJV-S Employee Engagement Activity Reporting**

Execute the planned strategies to improve Employee Engagement and report on monthly progress.

#### **Target: AJV-C Employee Engagement Activity Reporting**

Execute the planned strategies to improve Employee Engagement and report on monthly progress.

#### **Target: AJV-E Employee Engagement Activity Reporting**

Execute the planned strategies to improve Employee Engagement and report on monthly progress.

#### **Target: AJV-W Employee Engagement Activity Reporting**

Execute the planned strategies to improve Employee Engagement and report on monthly progress.

#### **Activity: AJI Employee Engagement**

Review Employee Engagement plans collaboratively, and implement plan components.

### **Target: Review and Implement Employee Engagement Plans**

Collaborate with each Lead assigned in FedView Employee Engagement Plan to execute the plans for the benefit of the entire organization.

### **Activity: Program Management Organization Employee Engagement**

Program Management Organization Employee Engagement Captains collaboratively review the plan of activities, execute and provide monthly reporting.

### **Target: Program Management Organization Employee Engagement**

Execute the planned strategies to improve Employee Engagement and report on monthly progress.

### **Activity: System Operations Employee Engagement**

System Operations Employee Engagement Captains collaboratively review the plan of activities, execute and provide monthly reporting.

### **Target: Review the Service Unit Action Plan**

Review the Service Unit Action Plan with specific strategies to improve the ATO Employee Engagement Index (EEI).

#### **Target: Execute Planned Strategies**

Execute the planned strategies to improve Employee Engagement and report on monthly progress.

#### **Activity: Technical Operations Employee Engagement**

Technical Operations Employee Engagement Captains collaboratively review the plan of activities, execute and provide monthly reporting.

#### **Target: Employee Engagement**

Review the Service Unit Action Plan with specific strategies to improve the ATO Employee Engagement Index (EEI).

#### **Target: Employee Engagement**

Execute the planned strategies to improve Employee Engagement and report on monthly activities.

#### **Activity: Air Traffic Services Employee Engagement**

Air Traffic Services Employee Engagement Captains collaboratively develop an AJT EE action plan focused on specific AJT and FAA enterprise priorities, and provide monthly updates.

#### **Target: Air Traffic Services Employee Engagement**

Air Traffic Services carries our Employee Engagement related actions to increase employee awareness of the FedView survey through targeted communications.

#### **Target: Air Traffic Services Employee Engagement**

Air Traffic Services carries our Employee Engagement related actions targeting challenges identified by FEVS 2020 related to the Employee Engagement Index.

### **Initiative: Small Business Opportunities**

Support small businesses and job creation by providing opportunities for small businesses to attain FAA contracts and purchase orders, with special emphasis on procurement opportunities for socially and economically disadvantaged small businesses (including 8(a) certified firms), service-disabled veteran-owned small businesses, and women-owned small businesses.

#### **Activity: Contracting with Small Businesses**

Utilize market analysis and acquisition strategies to provide opportunities for small businesses to compete for, and attain FAA contracts and purchase orders, with special emphasis on procurement opportunities for socially and economically disadvantaged small businesses (including 8(a) certified firms), service-disabled veteran-owned small businesses, and womenowned small businesses.

### Target: AJG - Support ACQ's Small Business efforts

Support ACQ's efforts to ensure 25% of the Agency's total direct procurement dollars are awarded to small businesses.

#### **Activity: Contracting with Small Disadvantaged Business (SDB)**

Utilize market analysis and acquisition strategies to provide opportunities for Small Disadvantaged Businesses (SDB) to compete for and attain FAA contracts and purchase orders.

#### Target: AJG - Support ACQ's Small Disadvantaged Business efforts

Ensure at least 12% of the Agency's total direct procurement dollars are awarded to Small Disadvantaged Businesses (SDB).

#### **Initiative: Strong Acquisition Workforce**

Ensure FAA has the staffing and skill mix to successfully manage NextGen and other major acquisitions by implementing training, developing and certifying personnel in key acquisition professions.

#### **Activity: Train and Certify FAA's Acquisition Workforce**

Attain and maintain certification requirements of program managers (PMs) and contracting officers.

#### Target: Attain and maintain certification requirements (AJM)

Attain and maintain certification requirements: 90% of program managers (PMs) on Office of Management and Budget (OMB) major acquisition programs attain/maintain certification requirements for their positions.

### **Global Leadership**

Advance global aviation safety, operational excellence and innovation by leading and collaborating with aviation authorities globally

### **Seamless and Sustainable International Operations**

Promote seamless, harmonized, and sustainable international operations by improving operational excellence in delegated airspace and neighboring FIRs, international capacity building, research and innovation, and environmental sustainability.

# Initiative: Ensure seamless and efficient movement of aircraft across international boundaries adjacent to U.S. managed airspace

The FAA shares Flight Information Region boundaries with 20 foreign ANSPs. It is critical that the movement of aircraft is as seamless and interoperable as possible. The FAA will cooperate with neighboring ANSPs to increase communications, navigation, and surveillance data sharing. The FAA will share the latest best practices; provide training, equipment repair, and loans; and harmonize procedures and separation standards. The FAA will deepen regional collaboration in Air Traffic Flow Management, Collaborative Decision Making, and performance-based operations, and seek greater participation in air traffic services data and network sharing. The FAA will strengthen regional planning and resiliency for exigency events, such as hurricane and pandemic response.

#### Activity: Collaborate with neighboring Air Navigation Service Providers (ANSPs)

Address U.S. regulated/controlled airspace matters in collaboration with ICAO and ANSPs.

#### Target: Future of the Ocean 2035 (FOTO 35)

The ATO continue to develop a concept for modernization of oceanic airspace operations through the Future of the Ocean 2035 (FOTO35) program. The ATO will lead two events for outreach through the International Civil Aviation Organization (ICAO), industry groups and the Civil Air Navigation Service Providers Organization (CANSO).

#### Target: Civil Air Navigation Service Providers Organization (CANSO)

Contribute to the CANSO mission by collaborating at least two air navigation efficiency-related events through CANSO ATFM Data

Exchange Network for Americas (CADENA) Regional Implementation Group and CANSO ATFM Data Exchange Network for Cooperative Excellence (CADENCE) Task Force.

### **Target: Space Launches**

The ATO will conduct one outreach event to educate foreign Air Navigation Service Providers on how best to integrate space operations into their airspace.

# Initiative: Advance internationally accepted innovative technologies to global standards to improve safety and efficiency

The FAA is best positioned to build upon the research and development of innovative technologies critical to providing the safest air transportation system in the world and advancing them as international standards at ICAO and other international standards-making bodies.

#### **Activity: Automatic Dependent Surveillance-Broadcast (ADS-B)**

Identify new and evolving surveillance technologies and capabilities to further improve on airspace safety and efficiency.

Target: The ATO will continue to identify ways to leverage new surveillance technologies (i.e., Space Based ADS-B) to modernize and improve aviation safety and efficiency in domestic, en route, and oceanic airspace.

The ATO will continue to identify ways to leverage new surveillance technologies (i.e., Space Based ADS-B) to modernize and improve aviation safety and efficiency in domestic, en route, and oceanic airspace. The ATO will provide at least two briefings to share lessons learned and best practices at events such as International Civil Aviation Organization (ICAO) and/or industry group meetings (e.g., IATA, CANSO).

#### Activity: Space Based ADS-B (SBA)

Provide Global Leadership by promoting the need to work towards a common approach for understanding SBA requirements and performance.

Target: The ATO will continue to engage with ICAO and work towards a common understanding of the requirements and performance of Space Based ADS-B (SBA) surveillance data.

The ATO will continue to engage with ICAO and work towards a common understanding of the requirements and performance of Space Based ADS-B (SBA) surveillance data. The ATO will engage with at least three Air Navigation Service Providers in order to share analysis of SBA data and potential impacts to operational use.

### **Operational Excellence**

Operate the world's most efficient aerospace system through daily execution, continuous improvement and infrastructure investment.

### **Optimize Mission Efficiency and Support**

Optimize efficiency and support mission requirements through daily execution, continuous improvement, planning, and investment. Effectively plan for and manage finances, procurement, information technology, and other mission support services.

#### Initiative: Aviation Surface Weather Observation Network (ASWON) Technology Refresh

Weather observations are provided to NAS controllers and aviation users by weather radars and automated surface weather stations. Hundreds of these legacy weather providers continuously stream minute-by-minute weather observations, machine-to-machine into NAS Weather Processing Systems, Automation Systems, and NextGen User Decision Support Tools. NextGen Portfolios may plan alternatives to eventually replace many legacy weather providers, yet budget and program changes to the replacement plans often leave indefinite, the remaining service life of legacy sensor systems subject to significant extensions. This initiative ensures no gaps in service of legacy weather observation providers throughout the NextGen transition, no matter whether replacement plans and deployment schedules may change or cease altogether. Relationship to Measure: ASWON portfolio (Programs: ASOS, AWOS, AWSS, SAWS, DASI, WEF, WME) in total account for seven, in-service, weather sensor programs that contribute to the 2016 Strategic Measure through sustained and continuous measurement of the atmosphere at the surface and aloft, collecting millions of observations each flight day, used to detect weather features, derive constraints to the free flow of air traffic, alert for weather hazards, and to fuel weather forecasts essential to the efficiency of NAS operations. The ASWON Portfolio serves and benefits every airport and every flight in the United States each flight day, by helping reduce delay, increase efficiency, and cope with severe weather.

### Activity: Aviation Surface Weather Observation Network (ASWON) Sustainment 2

Aviation Surface Weather Observation Network (ASWON) Technology Refresh

# Target: Aviation Surface Weather Observation Network (ASWON) Sustainment 2 - CAM Goal

Complete government receipt of 184 wind sensors from the vendor.

#### **Initiative: Weather Radar Program NEXRAD**

The NEXRAD SLEP program will resolve obsolescence and supportability issues associated with four major components that need to be replaced or refurbished to allow the NEXRAD system at each of the twelve FAA sites to meet its operational requirements until 2030. The twelve FAA sites are located in Alaska (7), Hawaii (4) and Puerto Rico (1). Further, the program will continue the development of unique FAA algorithms to meet aviation requirements. Efforts will be focused on developing enhancements to the icing and hail algorithms. The NEXRAD is an existing tri-agency system that provides safety and traffic management services throughout the National Airspace System (NAS) from National Weather Service (NWS) sites, Air Force (AF) sites and Federal Aviation Administration (FAA) sites. The tri-agency NEXRAD program includes 160 operational sites that provide data to the national radar network. The NEXRAD was designed for a 20-year life. The present average age of the NEXRAD systems is 17 years.

#### **Activity: NEXRAD- Sustainment 1**

The NEXRAD SLEP program includes four projects as detailed below: Signal processor (replacement) Radar Transmitter (refurbishment) Radar pedestal (refurbishment) NEXRAD facilities including structures, buildings, security fences, and access roadways (refurbishment).

#### **Target: NEXRAD- Sustainment 1- CAM Goal**

Last replacement/refurbishment completed at last site, San Juan.

#### **Initiative: Enterprise Solutions and Engineering**

The Time-Division Multiplexing to Internet Protocol (TDM-to-IP) Migration program will begin the systems interface development work in order to modernize National Airspace System (NAS) Systems to be IP-compatible. More than 90 percent of the 23,000 services obtained under the FAA Telecommunications Infrastructure (FTI) contract are TDM-based. FTI makes extensive use of the infrastructure of commercial Telecommunications carriers to reach more than 4,000 facilities operated by the FAA within the Continental United States (CONUS) and outside the CONUS (OCONUS).

#### **Activity: Enterprise Solutions and Engineering: TDM-IP Migration**

Modernize the system communications interface of NAS systems to be IP-compatible as part of the standard technology refresh process: As these carriers phase-out TDM-based infrastructure and migrate to IP-based technology, the potential impacts to the FAA are significant because the majority of NAS services are dependent upon the precision timing, deterministic performance, and low latency of TDM-based services.

### Target: Time Division Multiplexing (TDM) to Internet Protocol (IP) Migration

Complete 300 cumulative Remote Telecommunications Infrastructure Replacement (RTIR) circuit orders to enable network access transition

Target: Time Division Multiplexing (TDM) to Internet Protocol (IP) Migration Complete 253 site transitions.

Target: Time Division Multiplexing (TDM) to Internet Protocol (IP) Migration En Route Automation Modernization (ERAM) All Purpose Structured Eurocontrol Surveillance Information Exchange (ASTERIX)

Complete Software Development of surveillance Computer Software Configuration Item (CSCI) for En Route Automation Modernization (ERAM) All Purpose Structured Eurocontrol Surveillance Information Exchange (ASTERIX).

#### Target: Time Division Multiplexing (TDM) to Internet Protocol (IP) Migration

Establish FAA Telecommunication Infrastructure (FTI) Long Term Evolution (LTE) as an authorized telecommunications service for use in the National Airspace System (NAS).

#### Initiative: Voice Switching and Control System (VSCS) Tech Refresh Phase 4

Voice Switching and Control System (VSCS) controls the switching mechanisms allowing controllers to select the communication channel needed to communicate with pilots, other controllers, other air traffic facilities, and commercial telephone contacts. Controllers need to be able to quickly select the proper channel, to communicate with pilots, coordinate with other controllers and/or contact emergency services as necessary. The VSCS Technology Refresh program will replace/upgrade hardware and software components for the voice switching systems in all 21 en route air traffic control centers. The real time Field Maintenance/Testing System at the FAA William J. Hughes Technical Center (WJHTC) and the Training System at the FAA Academy will also be upgraded to perform the same as an operational site. These upgrades will ensure the air-to-ground and ground-to-ground communications capabilities are reliable and available for separating aircraft, coordinating flight plans, and transferring information between air traffic control facilities in the en route environment. To date, this program has replaced the VSCS internal control systems, updated the obsolete language used in some software programs, and replaced the VSCS Timing and Traffic Simulation Unit at the FAA WJHTC. This WJHTC test bed is being used to test the capabilities of the upgraded systems to determine if they meet the formal baseline requirements established for VSCS performance before they are deployed to operational field facilities. VSCS Technology Refresh Phase 3 (P3) will be dependent upon engineering analysis which will include Ground-to-Ground (G/G) node reduction efforts (approximately 10 nodes), Fiber Optic Tie Trunk (FOTT) power supply replacements (approximately 500 supplies), Local Area Network (LAN) Transceiver retrofits (approximately 7,000), and the PLM to C software conversion for the Air-to-Ground (A/G) switch. A Final Investment Decision for VSCS Technology Refresh P3 was approved Nov. 2012.

### Activity: Voice Switching and Control System (VSCS) Sustainment 4

Design, develop, and test VSCS technical refresh hardware and software.

### Target: Voice Switching and Control System (VSCS) Sustainment 4

FAA confirmation of GRIM/Back-Up Emergency Communication (BUEC) Circuit Card Assembly (CCA) production decision.

#### Initiative: Communications Facilities Enhancement

The Communications Facilities Enhancements (CFE) program provides new or relocated radio control facilities to enhance the A/G communications between air traffic control and aircraft when there are gaps in coverage or new routes are adopted by aircraft flying through the facility's airspace.

### **Activity: Expand Communications Facilities Enhancement (CFE)**

Expand Communications Facilities Enhancement (CFE)

### **Target: Communication Facilities - Sustain (CF-S)**

Complete one Communication Facilities - Sustain (CF-S) project.

#### Initiative: Next-Generation VHF A/G Communications System (NEXCOM) - Segment 2-Phase 1

The NEXCOM program replaces and modernizes the aging and obsolete NAS air-to-ground (A/G) analog radios that allow direct voice communication with pilots. Segment 2 will implement new radios that will service the high-density terminal areas and the flight service operations from FY 2010 to FY 2022.

#### Activity: Next-Generation VHF A/G Communication System (NEXCOM2) - Phase 2

Next-Generation VHF A/G Communication System (NEXCOM2) - Segment 2 Phase 1: Deploy Terminal and Flight Services Air Traffic Control Radios. Deploy 1500 Terminal and Flight Services Air Traffic Control Radios.

# Target: Next Generation Very High Frequency (VHF) and Ultra High Frequency (UHF) Air/Ground (A/G) Communications (NEXCOM) Phase 2

Operational Readiness Demonstration (ORD) at 315th Next-Generation Air/Ground Communications (NEXCOM) Phase 2 site.

# Target: Next Generation Very High Frequency (VHF) and Ultra High Frequency (UHF) Air/Ground (A/G) Communications (NEXCOM) Phase 3

Next-Generation Air/Ground Communications (NEXCOM) Very High Frequency (VHF) / Ultra High Frequency (UHF) Version 3 Chief Financial Officer (CFO) package approved.

#### **Initiative: Air Ground Media Gateway**

Air Ground Media Gateway (AGMG)

#### **Activity: Air-to-Ground Media Gateway (AGMG)**

As an integral part of FAA's Future Flight Services, the Air-to-Ground Media Gateway (AGMG) will enable the FAA's Flight Services Service Provider(s) (SPs) to interface with the FAA's legacy voice communication systems and network by providing a standard Voice over Internet Protocol (VoIP) interface for the SP's voice switch.

#### Target: Air-To-Ground Media (AGMG) Phase 2

Achieve In-Service Decision (ISD) for Air-To-Ground Media (AGMG).

#### Target: Air-To-Ground Media (AGMG) Phase 2

Complete installation of Air-To-Ground Media (AGMG) units at last Air Route Traffic Control Centers (ARTCC).

#### Initiative: System Wide Information Management (SWIM) Segment 2B

The System Wide Information Management (SWIM) Program is a National Airspace System (NAS)-wide information system that supports the FAA Next Generation Air Transportation System (NextGen). It is the NextGen focal information management and data sharing system.

#### **Activity: SWIM Segment 2B**

System Wide Information Management (SWIM) Segment 2B

# Target: System Wide Information Management (SWIM) 2B / NAS Common Reference (NCR)

Deliver and deploy into Operations NAS Common Reference (NCR) 1.1.1 with Aeronautical Common Services (ACS) connection and performance improvements.

## Target: System Wide Information Management (SWIM) 2B / NAS Common Reference (NCR)

National Airspace System (NAS) Common Reference (NCR) achieves an In-Service Decision (ISD).

## Target: System Wide Information Management (SWIM) 2B / Terminal Data Distribution System (STDDS)

Complete SWIM Terminal Data Distribution System (STDDS) Phase 2 Release 6 Initial Operational Capability (IOC).

# Target: System Wide Information Management (SWIM) 2B / Terminal Data Distribution System (STDDS)

SWIM Terminal Data Distribution System (STDDS) will complete deployment of R6P2 software at key site.

# Target: System Wide Information Management (SWIM) 2B/Identity and Access Management (IAM)

Complete the deployment of Identity and Access Management (IAM) Phase 2A, bringing the system to Full Operational Capability (FOC).

# Target: System Wide Information Management (SWIM) / Terminal Data Distribution System (STDDS)

Initiate development of S2C STDDS R6.1 –Standard Terminal Automation Replacement System (STARS)/ SWIM Terminal Data Distribution System (STDDS) data restoral

# Target: System Wide Information Management (SWIM) Terminal Data Distribution System (STDDS)

Enhanced SWIM Cloud Service (ESCS) Final Investment Decision (FID).

### **Initiative: Airport Cable Loop Systems Sustained Support**

This program replaces existing on-airport, copper-based, signal/control cable lines that have deteriorated. The primary focus will be on projects at airports with high traffic counts and enplanements.

### **Activity: Airport Cable Loop Systems Sustained Support**

Airport Cable Loop Systems Sustained Support. Install fiber optic cable loop.

### **Target: Airport Cable Loop Systems (ACLS) Sustained Support**

Complete one Airport Cable Loop Systems (ACLS) project.

## Initiative: ATO UAS Services Plan Priority 6 – Improve and Automate Airspace Access Requests

The present mix of manual and automated processing is not sustainable in the long run without policy and rulemaking changes. To that end, automation improvements are needed as manual processing of authorizations and waivers continue to climb even with Low Altitude Authorization and Notification Capability (LAANC) automation in place at the vast majority of towered facilities. Focus is needed in this area to develop an integrated solution that streamlines the steps required to efficiently process applications for airspace access. The focus is on improving process and automating where practicable, airspace access authorizations and waivers, including 91.113 Beyond Visual Line of Sight waivers. These changes not only lead to UAS being truly integrated into the NAS, but ultimately lead to streamlined access for proponents into the NAS.

# **Activity: Implement Approved Recommendations provided by Operational Request Working Group**

Analyze national policy to align Part 91 operations to Part 107 and Section 44809 operations when risk profiles are similar. Identify/explore where efficiencies can be gained for UAS operational requests under 14 CFR Part 91, 14 CFR Part 107 and Section 44809. Identify how business practices and/or policy for processing operational requests can be done more efficiently and uniformly across CFR Parts and potentially eliminate the need for review/approval of individual applications. Deliver recommendations on improvements to UAS operational requests.

## Target: Develop Document Change Proposals (DCPs) to FAA Order 7200.23 and FAA Oder 7930.2

Complete and submit for coordination the initial Document Change Proposals (DCPs) to FAA Order 7200.23 and FAA Order 7930.2 to reflect the results of the panel regarding the requirement for a Visual Observer (VO) and issuance of a Notice to Air Missions (NOTAMs) when Part 91 UAS operations have similar risk profiles to Part 107 and Section 44809.

#### **Target: Safety Risk Management Panel (SRMP)**

Conduct Safety Risk Management Panel (SRMP) to assess whether updates to policy for a Visual Observer (VO) and the issuance of a Notice to Air Missions (NOTAMs) introduce new hazards or increase risk.

#### **Activity: Improve and Automate Operational Approval Processes**

The ATO will seek to streamline its airspace access request processes to allow for more efficient processing of airspace access requests. Where possible the ATO will provide consistency of processes across various CFRs. These changes ultimately lead to more efficient processing of applications and increased access for proponents into the NAS.

### **Target: Streamlining 91.113 Waiver Process**

Based upon recommended activities from Priority Area 6 and data analysis, identify common elements needed for approvals. Organize common elements to standardize and expedite the processing of Part 91 BVLOS applications.

### Target: Develop and Submit 91.113 Waiver Process Guidance

Develop and submit for coordination guidance on the Part 91 Beyond Visual Line of Sight (BVLOS) waiver application process to be made readily available to the public.

### Initiative: Customer Experience and Messaging – Use Information to Improve System Performance

The Customer Experience and Messaging group within ATO Management Services Customer Strategy addresses all internal communications within AJG and all external communications to our customers.

#### Activity: AJG Communication Plan [Core Work]

Develop an AJG Communication Plan.

#### **Target: AJG Communication Plan**

Develop a comprehensive Communication Plan. Publish the plan upon approval from leadership.

#### **Target: AJG Branding**

Re-brand AJG's logo and develop collateral materials.

#### **Activity: AJG Digital Media Tools [Communication]**

Improve our image towards customers by providing new functionality, enhancing the user experience and updating content of AJG's digital media tools.

#### **Target: Content Updates**

Provide monthly content updates for the AJG website, such as organizational chart, telephone list and summary of AJG Services Provided.

#### **Target: AJG Website Redesign**

Redesign the AJG myFAA web page, to include directorate pages. Design an AJG intranet as a central source for employee information. Act as AJG liaison with the AOC web council.

#### **Activity: AJG Communications [Communication]**

Facilitate effective communication within and outside of Management Services Organization.

### **Target: External Communication**

Publish at least six editions of the ATO Minute that feature AJG Programs. Provide content for messaging in support of AJG events (e.g. DEIA panels).

#### **Target: External Communication**

Provide post event surveys, as requested, across ATO service units.

#### **Target: Internal Communication**

Publish "Just in from Jeff" messages at least once a month. Provide post AJG event surveys, as requested.

### **Activity: Customer Experience [Process Improvement]**

Derive a new process to assess the ATO customer service experience for services provided by AJG.

#### **Target: Customer Experience Process**

Develop a customer experience process and a new feedback approach for customer service delivery. Present proposed approach to AJG leadership for approval.

#### Initiative: ATO Strategic Planning – Use Information to Improve System Performance

The Strategic Planning group leads the process of strategic and business planning and integration of the ATO Business Plan within FAA's context. The group facilitates the ATO service units' use of goals and performance measures. The Strategic Planning group also leads and coordinates the Capital Investment Plan submission to Congress.

#### Activity: ATO Business Planning and Strategic Reporting [CORE WORK]

FAA business plans document efforts towards accomplishing the Agency's major goals, highlight the Agency's Strategic Initiatives, provide line of sight for Performance Management, and communicate major initiatives and planned accomplishments of interest for the coming fiscal year. The Strategic Planning group leads the process of strategic and business planning and integration of the ATO Business Plan within FAA's context. The group facilitates the ATO service units' use of goals and performance measures.

#### **Target: ATO Business Planning**

Coordinate ATO Performance Metrics briefings and facilitate monthly ATO Leadership discussions and decisions. Prepare OG briefing materials and deliver to the OG on a monthly basis. Prepare ATO status and represent ATO on Agency Performance Metrics at the monthly FAA Performance Committee meetings.

#### **Target: Future FY ATO Business Planning**

Coordinate the preparation of the ATO FY23 Business Plan with the ATO Service Units. Provide guidance and training materials based on input from lessons learned in prior year, ATO planners, and FAA planning office. Assist ATO Service Units and FAA in the actual Business Plan formulation, including the identification of Corporate Goals.

### **Target: ATO Strategic Reporting Requirements**

Coordinate ATO response to requests from FAA and DOT for quarterly and annual reporting requirements such as the DOT Performance Management Review (PMR), FAA Performance Accountability Report (PAR), DOT Enterprise Risk Management (ERM) Registry, DOT Annual Performance Plan (APP)/Annual Performance Report (APR) and OMB progress report.

#### **Target: ATO Corporate Goals**

Coordinate closeout of the current Fiscal Year ATO Short Term Incentives (STIs). Coordinate STI and Corporate STI (CSTI) related change requests with APO and other lines of businesses and keep stakeholders informed on progress. Prepare monthly STI/CSTI updates for monthly ATO Performance Metrics meetings. Develop ATO's STIs for the next Fiscal Year according to APO's timeline.

#### **Target: Service Unit Business Plans**

Provide senior level management with a monthly status on Business Plan progress, and prepare them for subsequent OG briefings. Initiate formulation of next Fiscal Year Business Plan for Management Services (AJG), Air Traffic Services (AJT), and Mission Support Services (AJV) according to APO's timeline, and work within each organization to develop meaningful content.

#### **Activity: ATO-wide Projects [Integration]**

The Customer Strategy directorate leads work on ATO-wide initiatives and coordinates across service units to depict a unified framework.

#### **Target: ATO Community Metrics**

Coordinate quarterly Community Metrics briefings, and facilitate ATO Leadership discussions and decisions throughout FY22.

## Target: AJG Representative for ATO Data and Analytics Modernization (ADAM) group

Represent AJG on the ADAM Steering Committee. Integrate AJG data and analytics work with Service Units for a unified ATO approach. Contribute to ATO-wide recommendations by participating in ADAM workgroups, such as Tableau Governance, Data Source Prioritization and others.

#### **Initiative: Business Office Management**

Fulfill several business office management functions for the directorate

#### **Activity: AJG-C Budget and Contracts [CORE WORK]**

Work with AJG-C Management Team to perform AJG-C budget and contract functions, in conjunction with designated financial analyst and COR(s).

### **Target: AJG-C Budget**

Work with AJG-C Management Team to perform AJG-C budget functions, in conjunction with designated financial analyst. Formulate, execute and maintain Customer Strategy budgets with AJG-R financial leads and the ORB. Keep leadership informed. Meet all deadlines for ORB submissions.

#### **Target: AJG-C Contracts**

Work with AJG-C Management Team to perform AJG-C contracts functions, in conjunction with designated COR. Analyze monthly contract invoices and processing and keep leadership informed.

#### Initiative: ATO UAS Services Plan Priority 4 – Develop Geospatial Capability

The ATO received several requests focused on enhancements to existing capabilities and new capabilities for managing UAS geospatial information. The ULT and ATO Directors Forum approved an approach for a single enterprise capability to address these operational needs in 2019. The ATO is supporting a mandate to establish a process to allow applicants to petition the FAA to prohibit or restrict the operation of UAS in close proximity to a fixed site facility. This effort also highlights the need for a geospatial enterprise capability within the FAA and ATO to manage the UAS geospatial needs. The FAA's Low Altitude Authorization and Notification Capability (LAANC) is another important part of this priority. Updates to the geospatial attributes of LAANC are ongoing and vital to continued success. The ATO continuously improves the LAANC tool through updates to the UAS facility maps and other tool features.

#### **Activity: Managing UAS Geospatial Information**

Develop Concept of Operations and preliminary Program Requirements for an enterprise capability to manage UAS geospatial information, which considers operational need for the submission, management, and publication of shape files associated with managing UAS Geospatial Information.

#### **Target: Concept of Operations for Enterprise UAS Geospatial Management**

Develop and finalize with stakeholders the Concept of Operations for Enterprise UAS Geospatial Management effort.

#### **Target: UAS Geospatial draft Preliminary Program Requirements**

Start to Perform Functional Analysis and decompose Preliminary Program Requirements Document (pPRD) for enterprise capability for managing UAS geospatial information, with a final completion date in FY22.

# Activity: Low Altitude Authorization and Notification Capability (LAANC) UAS Service Suppliers (USS) NOTAM API implementation

- Complete O&M Enhancements for reporting on system health and metrics
- Deploy Common Authentication Service
- Deploy ArcGIS enterprise server in support of LAANC
- Complete annual LAANC Software enhancements and USS Upgrade Onboarding
- Complete LAANC UI development for mobile (iPad) use

# Target: Low Altitude Authorization and Notification Capability (LAANC) UAS Service Suppliers (USS) NOTAM API implementation

2 UAS Service Providers incorporating NOTAM API in LAANC

### Activity: Low Altitude Authorization and Notification Capability (LAANC) Further Coordination function enhancement

Implement LAANC improvements including:

- Complete O&M Enhancements for reporting on system health and metrics
- Deploy Common Authentication Service
- Deploy ArcGIS enterprise server in support of LAANC
- Complete annual LAANC Software enhancements and USS Upgrade Onboarding
- Complete LAANC UI development for mobile (iPad) use

### Target: Low Altitude Authorization and Notification Capability (LAANC) Further Coordination function enhancement

Develop software changes to LAANC system and UAS Service Supplier implementation

# Activity: Low Altitude Authorization and Notification Capability (LAANC) at Department of Defense (DOD) Sites

Expand LAANC access to more users and providers:

- Support DoD LAANC evaluation at designated facilities
- Open LAANC Onboarding Period for USS Applicants

# Target: Low Altitude Authorization and Notification Capability (LAANC) at Department of Defense (DOD) Sites

Initiate LAANC evaluation by DOD users

#### **Initiative: Deployment of Windows 10 (Win10)**

Continue Windows 10 deployment to AIT managed clients in order to meet security concerns that computers on the FAA network are secure and at the latest FAA supported operating system. Once they are on Windows 10 they must also continue to be perpetually updated to the latest FAA supported Windows 10 feature update.

#### **Activity: Deployment of Windows 10**

Continue Windows 10 deployment to AIT managed clients in order to meet security concerns that computers on the FAA network are secure and at the latest FAA supported operating system. Once they are on Windows 10 they must also continue to be perpetually updated to the latest FAA supported Windows 10 feature update.

# Target: Technical Operation Services (AJW) Maintenance Data Terminal (MDT)/Second Level Engineer (SLE) Upgrades - T2

Enterprise Program Management Service (AEM), Strategy & Performance Service (ASP) and Technical Operation Services (AJW) will reduce the number of Windows 7 Maintenance Data Terminal (MDT)/Second Level Engineer (SLE) computers by 80%.

#### **Initiative: Unmanned Aircraft Systems (UAS) Services**

UAS Services Low Altitude Authorization and Notification Capability (LAANC) provides an automated approval process for airspace authorizations in controlled airspace under 400ft. Through automated applications developed by an FAA Approved UAS Service Suppliers (USS), drone pilots apply for an airspace authorization.

#### **Activity: Unmanned Aircraft Systems (UAS) Services**

Unmanned Aircraft Systems (UAS) Services

#### **Target: Unmanned Aircraft Systems (UAS) Services**

Complete Drone Information for Security, Compliance, Verification, and Reporting (DISCVR) Beta Evaluation.

#### **Target: Unmanned Aircraft Systems (UAS) Services**

Complete integration of Common Authentication Service for Unmanned Aircraft Systems (UAS) Data Exchange.

#### **Target: Unmanned Aircraft Systems (UAS) Services**

Release Common Logging and Monitoring for use by Unmanned Aircraft Systems (UAS) Data Exchange Services.

#### **Initiative: Training Administration**

Improve Technical Training's Administration through establishment of new tools and processes.

#### **Activity: Predictive Learning Analysis Network (PLAN)**

Continued Development of Predictive Learning Analysis Network (PLAN).

#### **Target: Predictive Learning Analysis Network (PLAN) Business Taxonomy**

Identify topology and integrate database information sets requirements for integration to enable business taxonomy-driven training throughput events.

#### **Activity: Training Enterprise Applications and Management (TEAM) Field Deployment**

Complete deployment of updated TEAM to identified facilities.

## Target: Training Enterprise Applications and Management (TEAM) Field Deployment - CEDAR Facilities

Complete deployment of updated TEAM version that incorporates field-requested enhancements to 27 CEDAR facilities.

# Target: Training Enterprise Applications and Management (TEAM) Field Deployment - Pilot Facilities

Complete deployment of updated TEAM version that incorporates field-requested enhancements to all 39 pilot facilities.

# Target: Training Enterprise Applications and Management (TEAM) Field Deployment - Air Traffic Facilities

Complete deployment of updated TEAM version that incorporates field-requested enhancements to all remaining Air Traffic facilities.

#### **Activity: Mobile Learning Platform Process Identification and Documentation**

Continue to mature the Mobile Learning Platform by instituting consistent service level management processes.

#### **Target: Identification of Major Helpdesk Processes**

Identify at least five major processes and procedures that the helpdesk performs that require documentation for continuity and consistency of user experience.

#### **Target: Documenting and Publishing of Major Helpdesk Processes**

Document help desk processes and publish them to a centralized location for Mobile Learning Platform (MLP) service desk personnel to reference.

#### **Activity: Standardization of Project Management**

Standardize project management tracking across the Technical Training organization by implementing Corporate Work Plan (CWP).

#### **Target: Project Loading into Corporate Work Plan**

Through a six-stage implementation plan, load 100% of approved training requirements/development projects and train AJI-2 staff on managing, statusing, and reporting their projects in CWP/Primavera 6 as their projects are brought in.

#### **Target: Development of New Processes**

Develop new processes to utilize CWP capabilities for other existing tools.

#### Activity: Standardization of AJI-2 Post Course Evaluations in eLMS

Initiate the standardization of Technical Training administration of post-course training surveys in eLMS.

### Target: Initiate administration of Post-Course Training Surveys for AJI-2 eLMS Courses.

Develop an Implementation Plan to attach Level One Post Course Surveys to AJI-2 web based training using the Academy Evaluation System (AES).

#### **Activity: Flash Conversion**

Convert Flash elements in web-based training.

#### **Target: Complete Conversion Flash Elements for Prioritized Courses**

Complete Flash conversions for identified AT and Tech Ops courses.

#### Activity: Develop Implementation Plan to test AT/TO eLMS Courses in MS Edge

Develop a plan for testing Air Traffic and Tech Ops eLMS courses using Microsoft Edge browser in place of Internet Explorer. (Estimated removal of IE is June 2022.)

#### **Target: Develop Implementation Plan for Edge Testing**

Develop Implementation Plan for testing of AT and Tech Ops eLMS Courses using MS Edge. The Implementation plan will include a ranking of courses to be tested and a schedule to complete the testing and validation.

#### **Target: Identification of Testing Tool**

Collaboratively with AT, Tech Ops and Training Technology Group, identify tool for testing.

#### **Target: Testing and Validation of Identified Courses**

Using the Implementation plan schedule, test and validate the top 40% of courses.

#### **Initiative: AJI Organization Development**

Utilize communications plans to effectively disseminate information to AJI personnel and external stakeholders.

#### **Activity: Enhance AJI Communication with Internal and External Stakeholders**

Develop communications campaigns and effectively disseminate information to AJI personnel and stakeholders at headquarters and in the field.

#### **Target: Develop AJI Communications Vehicles**

Partner with AOC to develop tailored AJI communication campaigns and vehicles based on the intended audience to target AJI personnel and stakeholders at HQ and in the field.

#### **Target: Fund and Manage Contracts**

Develop an automated workflow for tracking new contract and purchase card requirements for AJI. Deploy beta in FY22 Q1; deploy across AJI FY22 Q2.

#### Initiative: NAS Security and Enterprise Operations, AJW-B0

Maintain the current mission, vision, and core values of NAS Security and Enterprise Operations (NASEO).

#### **Activity: NAS SECURITY AND ENTERPRISE OPERATIONS**

Institute a robust outreach initiative supporting the ATO Cybersecurity Group (ACG) as the comprehensive cyber organization for the ATO.

#### **Target: Cyber Security Conference**

Execute the annual ATO Cybersecurity Day Conference during the first quarter FY22 to promote awareness of cybersecurity as well as awareness of ATO, FAA, and Federal cybersecurity policy, organizational structure, and cybersecurity collaboration activities and initiatives.

#### **Initiative: Network Operations Group, AJW-B100**

Provide world-class, around-the-clock, operational oversight and maintenance of assigned global enterprise systems and networks supporting the National Airspace System (NAS).

#### **Activity: TFMS/NAIMES TEAM, AJW-B170**

Provide operational oversight and maintenance of assigned NAIMES and TFMS global enterprise systems/networks.

#### **Target: TFMS/NAIMES TEAM, AJW-B170**

Create and Implement a plan to conduct quarterly cut-overs from primary production to the Disaster Recovery facility, which incorporates both PMO and Sys Ops into the planning and execution phases.

## Initiative: Very High Frequency Omni-Directional Range (VOR) - Tactical Air Navigation (TACAN) (VORTAC) - Landing and Lighting Portfolio

The VOR collocated with Tactical Air Navigation (VORTAC) Program relocates, refreshes technology at VOR and VORTAC facilities, and improves VOR operational performance by procuring and installing Doppler electronic kits and Doppler antenna hardware kits to upgrade the conventional systems. Numerous VORs have radial restrictions because of encroachment by obstacles that block the transmission of VOR signals. Doppler upgrades for a VOR eliminates the signal reflection restrictions caused by newly constructed tall buildings, nearby industrial parks with a high concentration of metallic buildings, overhead transmission lines, radio, television and cellphone towers, and, more recently, wind farm stations. The VOR and VORTAC (a combination of VOR and Tactical Air Navigation (TACAN) system) provide navigational guidance for civilian and military aircraft in both the en-route and terminal areas.

# Activity: Ground Based NavAids –Very High Frequency Omni-Directional Range (VOR) - Tactical Air Navigation (TACAN) (VORTAC)

In FY22 the VORTAC Program will enhance VOR signal performance by converting TACANS to DMEs. There are numerous VORs that have signal restrictions due to encroachment of obstacles that block the transmission of VOR signals. These restrictions are having a serious impact on en-route, arrival, and departure procedures. Natural encroachment also comes from trees located outside the boundaries of the FAA controlled area where the VOR is located which have grown tall enough to cause electromagnetic interference. Many manmade obstacles can cause the same interference. Examples include: newly constructed tall buildings; nearby industrial parks with a high concentration of metal buildings; overhead transmission lines; towers for radio, television, and cell service; and more recently, wind farms. Dopplerizing a VOR eliminates the signal reflection restrictions caused by most of these obstacles.

# Target: Conversion of Tactical Air Navigation (TACAN) systems to Distance Measuring Equipment (DME) (CAM Goal)

Convert seven (7) Tactical Air Navigation (TACAN) systems) systems to Distance Measuring Equipment (DME).

#### **Initiative: National Operations, AJW-B300**

Provide programmatic Technical Operations, leadership with a responsibility for local, regional, and enterprise level tactical and strategic event management, to include cybersecurity monitoring, incident response and maintaining real-time situational oversight of NAS infrastructure services to maintain a global 24/7 situational awareness of the National Airspace System (NAS) infrastructure used to make informed decisions for the safe and efficient movement of both international and domestic air traffic.

### Activity: OPERATIONS CONTROL CENTER (OCC), AJW-B320

Provide 24/7 operational oversight with a focus on ensuring NAS infrastructure service delivery, providing strategic and tactical management of the National Airspace System (NAS) infrastructure availability through coordinated and collaborative decision-making processes in order to meet the immediate NAS challenges of today, and into the future.

#### **Target: Remote Maintenance Monitoring**

Convert Remote Maintenance Monitoring to Service Level Monitoring for all services that fall under the TOCC umbrella. RMSET will combine the legacy AOCC, MOCC and POCC in the RMLS logging and monitoring applications to a single consolidated OCC.

#### **Activity: NAS Cyber Operations, AJW-B340**

The NCO ensures the integrity, availability and security of the NAS through cyber security monitoring, incident detection and response, and collaborative analysis to minimize cybersecurity risk to acceptable levels as determined by the Authorizing Official (AO)/AODR (Authorizing Official Designated Representative).

#### **Target: NAS Cyber Operations, AJW-B340**

Establish a 24x7x365 NCO Federal staffed workforce in the NAS Cyber Operation facility.

### Activity: Internal Activity: National Operations, AJW-B310, AJW-B311, AJW-B312, AJW-B313, AJW-B314

Provide national oversight and operational management of Technical Operations services, systems, and infrastructure. Provide situational awareness through communication and focus on minimizing operational impact to the NAS. Participate as a critical component of the national field incident response program, including the Joint Air Traffic Operations Command Crisis Action Team (JCAT). Assist in coordinating the distribution of resources to mitigate NAS service impacts. Provide coordination to assist with timely resolution of operational events in accordance with national priorities. Escalating and facilitating responses for facility restoration. Serve as an advocate for Technical Operations and liaison to senior leadership to form a more comprehensive and systemic picture of the NAS and improve coordination amongst the Joint Air Traffic Operations Command.

#### **Target: Internal Target: Safety**

Implement the One Message Concept to provide real-time upward reporting to senior leadership.

#### Initiative: NAS Information Security Group, AJW-B400

Mitigate evolving cyber threats and Information Systems Security (ISS) vulnerabilities that have the potential to impact Air Traffic Operations. This is done by providing Risk Management System Authorization, Governance, Architectural Development, Monitoring, Detection, and Response through NAS Cyber Operations. These services provide the agility necessary for the ISS environment, while complying with public law and supporting aviation safety and efficiency goals.

#### **Activity: NAS Information Security Group, AJW-B400 (Vulnerability Processes)**

Protect and defend FAA information, information systems and networks to mitigate risks to the FAA mission and services.

#### **Target: Authority to Operate**

Achieve Authority to Operate (ATO) for 84 systems

#### Target: System Characterization Document (SCD)

Complete SCDs for 90 systems

#### **Target: FISMA Testing**

Conduct security testing on 120 FISMA Reportable and new Systems that are testable.

#### **Target: Enterprise-Operational Support Environment (E-OSE)**

Enterprise-Operational Support Environment (E-OSE): Complete the ACY network and virtualization build for the Enterprise OSE.

#### **Target: Remote Management Access Gateway (RMAG)**

Remote Management Access Gateway (RMAG): Stand up an instance of RMAG at Mike Mulroney Aeronautical Center (OEX) which operates in parallel with ACY

#### **Target: Penetration Testing**

Conduct penetration testing (partial or full system) on 5 High Value Asset (HVA) systems to meet requirements of NIST 800-53 Security Controls CA-2 with CA-8 systems.

#### **Target: Zero Trust Pilot**

Develop a design for a zero trust pilot in collaboration with ANG.

#### **Target: Draft ATO/NAS**

Establish draft ATO/NAS categories of Controlled Unclassified Information (CUI) to ensure the continued protection of ATO/NAS information previously considered For Official Use Only (FOUO).

#### Target: Critical Infrastructure Cybersecurity Enhancements M35.01-01

Complete deployment of Enterprise Security Prototype Infrastructure (ESPI) Network Core and Virtualization Infrastructure.

#### **Initiative: Flight Program Operations**

Perform airborne inspection of civil and military NAVAIDS; perform flight validation/certification of Instrument Flight Procedures (IFPs); and provide services to NextGen programs and other FAA and non-FAA project sponsors that require flight inspection support.

#### **Activity: Flight Program Operations (NAS maintenance/sustainment)**

Conduct periodic and special maintenance inspections of civil and military NAVAIDS as required by FAA Order 8200.1, U.S. Standard Flight Inspection Manual. Conduct flight validation/certification of original and amended Instrument Flight Procedures (IFPs).

#### **Target: Flight Program Operations (NAS maintenance/sustainment)**

Complete 93% of unscheduled restoral inspections at focus airports within 48 hours when requested by Air Traffic Services (AJT).

#### **Target: Flight Program Operations (NAS maintenance/sustainment)**

Complete 97% of all periodic flight inspections at focus airports before the expiration date of the periodic interval.

#### **Initiative: Customer Experience and Mission Completion**

Identify and leverage internal best practices from government and industry for customer experience and mission completion.

#### **Activity: Customer Experience and Mission Completion**

Identify and leverage internal best practices from government and industry for customer experience and mission completion.

#### **Target: Customer Experience and Mission Completion**

Follow-up and respond (where response is appropriate) to 95% of Aviation Safety Training Customer Experience Questionnaires.

### Initiative: Visual Navigational Aids (NavAids) for New Qualifiers - Landing and Lighting Portfolio, CIP# N04.01-00

Visual NavAid systems facilitate the transition from cockpit instruments to external visual references during the final landing phase. Different categories and types of approaches require different visual NavAids equipment. This program supports the procurement, installation, and commissioning of PAPI systems and Runway End Identifier Lights (REIL) systems.

The PAPI provides visual approach glide slope information to pilots and enables them to make a stabilized descent with a safe margin of approach clearance over obstructions. PAPI projects a pattern of red and white lights along the desired glide slope so a pilot can tell whether they are on the glide slope and how to correct their glide slope if they are above or below it.

A REIL is a visual aid that provides the pilot with a rapid and positive identification of the runway end in use during approach. The REIL system consists of two simultaneously flashing white lights, one on each side of the runway landing threshold.

#### **Activity: Procure and Install Visual NavAids for New Qualifiers (VNNQ)**

In FY22 the VNNQ program will provide engineering and technical services support in order to procure and Install Precision Approach Path Indicator (PAPI) Systems for newly established locations.

#### Target: Procure Precision Approach Path Indicator (PAPI) systems.

Procure three (3) Precision Approach Path Indicators (PAPI) systems for newly established locations.

#### Target: Install Precision Approach Path Indicator (PAPI) systems. (CAM Goal)

Install four (4) Precision Approach Path Indicator (PAPI) system for newly established location.

#### **Initiative: Runway Safety Area - Navigation Mitigation**

The Runway Safety Area (RSA) Sustainment 2 program will correct FAA-owned facilities and equipment (F&E) that are not in compliance with RSA Standards defined in the Advisory Circular 150/5300-13A and not part of the RSA Phase I effort. Compliance with the RSA standards provide a measure of safety in the event of an aircraft's excursion from the runway by significantly reducing the extent of personal injury or aircraft damage during overruns, undershoots and veer-offs. Thus, the primary benefit of the RSA Phase II program is the prevention of loss of life from aircraft striking non-compliant NAVAIDs located in designated RSAs.

Under the previous RSA Phase I effort, between FY 2010 and December 2018, the FAA successfully executed 1,401 projects to correct violations at 611 RSAs. Although significant progress has been made to mitigate all known RSA violations, additional RSA violations have been found during routine Air Traffic Organization and ARP inspections. RSA Phase II will ensure that previously undiscovered violations are corrected in a timely manner.

#### Activity: Runway Safety Area (RSA) Navigation Mitigation Phase II

In FY22 the RSA program will upgrade Runway Safety Areas to meet standards.

Target: Initiate Runway Safety Area (RSA) Navigation Mitigation Phase II projects Initiate four (4) RSA projects.

Target: Complete Runway Safety Area (RSA) Navigation Mitigation Phase II projects. (CAM Goal)

Complete three (3) RSA projects.

#### Initiative: Initiative: Controller Training Solutions (CTS) Program

Manage the Controller Training Solutions (CTS) Program to provide agency-required Air Traffic Control (ATC) training support

### Activity: -- Activity: Controller Training Solutions (CTS) Program Management

Manage the execution of the Controller Training Solutions (CTS) Program

### **Target: -- Activity: Controller Training Solutions (CTS) Program Management**

Provide program management oversight for Controller Training Solutions (CTS) Task Order efforts identified by CTS stakeholders.

### **Target: -- Activity: Controller Training Solutions (CTS) Program Management**

Manage Controller Training Solutions (CTS) FY22 budget to support delivery of agency-required Air Traffic Control (ATC) training support.

#### Target: -- Activity: Controller Training Solutions (CTS) Program Management

Provide program management oversight for innovation opportunities identified by Controller Training Solutions (CTS) stakeholders.

#### Target: -- Activity: Controller Training Solutions (CTS) Program Management

Manage the operations and maintenance of the Controller Training Solutions
Management System (CMS) to support the execution and management of the Controller
Training Solutions (CTS) Contract.

# Initiative: Visual NavAids - Replace Visual Approach Slope Indicator (VASI) with Precision Approach Path Indicators (PAPI) - Landing and Lighting Portfolio

The International Civil Aviation Organization (ICAO) has recommended that all International airports replace the Visual Approach Slope Indicator (VASI) lights with Precision Approach Path Indicators (PAPI) lights. This standardizes the equipment used to allow pilots to determine visually that they are on the proper glideslope for landing. The program supports the procurement, installation, and commissioning of PAPI systems in order to comply with this ICAO recommendation. At the inception of this program, there were approximately 1,387 older (pre-1970's) VASIs at international and other validated locations requiring replacement. The first phase of the program addresses replacement of VASI systems at approximately 329 ICAO runway ends. The remaining VASI systems in the NAS will be replaced during the second phase of the program.

#### Activity: Procure and Replace Precision Approach Path Indicator (PAPI) Systems.

In FY22 VASI systems will be replaced with PAPI systems. The replacements will improve ontime performance by improving availability of the visual approach slope guidance systems used to help pilots touch down at the appropriate location on the runway.

#### Target: Procure Precision Approach Path Indicator (PAPI) Systems.

Procure four (4) Precision Approach Path Indicators (PAPI) systems to replace VASIs.

#### Target: Replace Precision Approach Path Indicator (PAPI) Systems. (CAM Goal)

Install twelve (12) Precision Approach Path Indicator (PAPI) Systems to replace Visual Approach Slope Indicator (VASI) systems.

#### Initiative: N12.01-11: Augmentations for GPS Wide Area Augmentation System (WAAS)

Wide Area Augmentation System (WAAS) is a combination of ground based and space-based system that augments the GPS Standard Positioning Service. WAAS utilizes GPS signals to refine position and provide improved accuracy. WAAS consists of a network of 38 precisely located ground reference stations distributed across the United States, Canada and Mexico that monitor the Global Positioning System (GPS) satellite signals. Three master stations collect reference station data and calculate corrections and integrity messages for each GPS satellite. The WAAS messages are broadcast to user receivers via leased navigation transponders on three commercial geostationary (GEO) satellites. The receiver on the aircraft applies corrections and uses integrity information from the WAAS message, to ensure the validity and obtains a precise navigation position.

### Activity: Augmentations for GPS Wide Area Augmentation System (WAAS) Phase 4B

During Phase 4B, the WAAS Program Office will continue to support GPS civil technical oversight efforts. The GPS technical oversight ensures changes the Department of Defense (DoD) makes to the GPS constellation does not impact the FAAs WAAS and GPS based aviation users.

#### **Target: Dual Frequency Operations (DFO) 2**

Award the Contract for Dual Frequency Operations (DFO) 2.

#### Target: Complete cutover of the Geostationary (GEO) 7 Satellite. (CAM Goal)

Complete cutover of GEO 7.

# Activity: Develop and Publish WAAS Localizer Performance with Vertical Guidance/Localizer Performance (LPV/LP) Approach Procedures.

The program will ensure Localizer Performance with Vertical Guidance/Localizer Performance (LPV/LP) approach procedures are available at each of the 5,218 runways in the NAS that meet the criteria.

#### Target: Develop and Publish WAAS LPV/LP Approach Procedures

Develop and publish25 WAAS Localizer Performance with Vertical Guidance/Localizer Performance (LPV/LP) approach procedures.

# Target: AJV-A: Support Activities to develop and publish 25 WAAS Localizer Performance with Vertical Guidance/Localizer Performance (LPV/LP) approach procedures.

Support the development of WAAS Localizer Performance with Vertical Guidance/Localizer Performance (LPV/LP) approach procedures.

#### **Initiative: Voice Communications Systems (VCS)**

The Voice Communications Systems (VCS) program will support the FAA's mission to provide reliable voice communication equipment to air traffic controllers in order to manage and direct air traffic operations.

#### Activity: Voice Communications Systems (VCS) - Phase 1

Voice Communications Systems (VCS) – Phase 1 will address the need to replace the aging and increasingly unsupportable Radio Control Equipment (RCE) while allowing IP-enabled VCS systems to interface with legacy voice communications switches and radios.

### **Target: Voice Communications Systems (VCS)**

Completion of Voice over Intranet-Protocol Communications Enterprise (VoICE) CHORUS Scenarios (high, medium, and low priority) and generation of scenario execution report.

#### Initiative: Internal Initiative: Flight Program Fleet Modernization

The Flight Program Fleet Modernization (FPFM) will provide the FAA with a streamlined, modernized fleet of aircraft to support all of the dynamic mission needs. This program will be completed in 2 phases, Phase 1 will streamline the jet aircraft and Phase 2 will streamline the turboprop aircraft.

#### **Activity: Internal Activity: FPFM Phase 1**

FPFM Phase 1 will streamline and modernize the FAA jet aircraft down to one make and model type from 6 and consolidate the jet aircraft owned by the FAA from 13 to 6. The FAA will purchase 4 used aircraft from the open market to supplement already owned aircraft. Each aircraft will be multi-use and will be able to support all mission types, Flight Inspection, RDT&E, critical event response and transportation missions.

#### **Target: Flight Program Fleet Modernization - EP Goal**

Purchase one aircraft to begin the modernization of the FAA jet fleet.

#### Initiative: Runway Visual Range (RVR) - Landing and Lighting Portfolio

The Runway Visual Range (RVR) Replacement/Establishment program allows airports to conduct takeoff and landing operations during conditions of low visibility. Replaces older RVR equipment with Personal Computer (PC) Based RVR equipment as well as equipment for sites that have qualified for an upgrade from a Category I to a Category II/III precision approach. RVR provides air traffic controllers with a measurement of the visibility at key points along a runway that is used to decide whether it is safe to take off or land during limited visibility conditions. During reduced visibility weather conditions, RVR system measurements are used by Air Traffic to establish airport operating categories; thus, properly equipped aircraft with a trained crew may continue operations under reduced visibility Category I, Category II and Category III conditions. RVR decreases diversions and delays at an airport by providing an accurate measure of the runway visibility. The RVR information affects airline scheduling decisions and air traffic management decisions regarding whether flight plans should be approved for an aircraft to fly to or take off from an airport with low visibility.

#### Activity: Runway Visual Range (RVR) Replacement/Establishment

In FY22 the RVR program will procure and install the new-generation RVR and PC-based RVR\ systems. Replacement decisions are prioritized based on the level of Internal Activity at the airport, equipment age and life-cycle issues, such as: Reliability, Availability and Maintainability. This project also provides the equipment for sites that have recently qualified for an upgrade from a Category I to a Category II/III precision approach. The replacement or upgraded equipment will require less maintenance and repair time, which reduces system downtime, and supports the performance measure to maintain operational availability of the NAS.

#### **Target: Procurement of Runway Visual Range Systems**

Procure Runway Visual Range (RVR) equipment to support 28 site installations.

#### Target: Install Runway Visual Range (RVR) Systems. (CAM Goal)

Install ten (10) Runway Visual Range (RVR) Systems.

### Initiative: Visual Navigational Aids - NavAids - Sustainment - Landing and Lighting Portfolio

The NavAids Sustainment Program renovates or replaces airport approach lighting systems at sites where there is a high risk for failure and where that failure would result in loss of the primary precision approach. NavAids include: MALSR for Category I approaches, ALSF-2 for Category II/III approaches, Runway End Identifier Lights (REIL), Lead-In Lights (LDIN), and Precision Approach Path Indicator (PAPI).

### Activity: Visual Navigational Aids - NavAids - Sustainment - Landing and Lighting Portfolio-Replacement Lamp Monitoring Systems (RLMS)

In FY22 this program will renovate or replace airport approach lighting systems at sites where there is a high risk for failure of these systems and where failure would result in denying use of the primary precision approach. NAVAIDS include: \* Medium Intensity Approach Lighting System with Runway Alignment Indicator Lights (MALSR) for Category I approaches, \* High Intensity Approach Lighting System with Sequenced Flashing Lights (ALSF-2) at Category II/III approaches, and \* Runway End Identifier Lights (REIL).

#### Target: Install Replacement Lamp Monitoring Systems (RLMS). (CAM Goal)

Install RLMS at four (4) sites.

#### **Target: Award Semi-Flush Steady Burner Contract**

Award Semi-Flush Steady Burner Contract.

#### Target: Install Runway End Identifier Lights (REIL)

Install Runway End Identifier Lights (REIL) at four (4) sites.

#### Initiative: Instrument Landing System (ILS) - Landing and Lighting Portfolio

The Instrument Landing Systems (ILS) Program supports the establishment and sustainment of ILS and/or Approach Lighting System with Sequencing Flashing Lights (ALSF-2) systems needed for Category (CAT) II/III precision approach procedures. In addition, sustainment of CAT I ILSs and Medium Approach Lighting System with Runway Alignment Indicator Lights (MALSR) work is conducted. An ILS precision approach is comprised of a grouping of electronic devices: Localizer, Glide Slope and marker beacons and, in some cases, ancillary aids (e.g. Distance Measuring Equipment, Approach Lighting System, Runway Visual Range, etc.) that provide landing aircraft with both electronic guidance and visual landing aids.

These systems allow properly equipped aircraft to land safely in adverse weather conditions. The ILS provides both vertical and lateral guidance information for the pilot to allow safe landing to touchdown and rollout. The ILS sends information to instruments in the cockpit so that the pilot can maintain a predetermined flight path to the runway even in low visibility. The ILS also provides a backup landing capability in the event of a loss of Global Navigation Satellite System (GNSS) service. The ALSF-2 and the MALSR are lighting systems installed along the extended centerline extending a distance of 2,400 feet outward into the approach zone and ending at the runway threshold to provide visual cues to help the pilot see the runway.

### Activity: Complete Instrument Landing Systems (ILS) projects.

In FY22 the ILS Program will provide engineering and technical services/support, procure ILSs and ancillary equipment, and complete ILS replacement projects, and complete one on-going ALSF-2 establishment projects. This effort will improve both system safety and capacity at equipped runways by providing precision approach capability in the U.S. and worldwide for aircraft landing in adverse weather conditions.

#### Target: Procurement of Replacement Instrument Landing Systems (ILS).

Procure two (2) Instrument Landing Systems (Glide Slope (GS) and Localizer (LOC)).

#### **Target: Complete Instrument Landing System projects. (CAM Goal)**

Complete two (2) Instrument Landing System Projects.

#### Initiative: Distance Measuring Equipment (DME) - Landing and Lighting Portfolio

The Distance Measuring Equipment (DME) is a radio navigation aid used by pilots to determine the aircraft slant distance from the DME location. The program is procuring and installing state-of-the-art DME systems to: support replacement of DMEs that have exceeded their service life expectancy, establish new DMEs at qualifying airports, to relocate DME facilities, and establish DMEs in lieu of Instrument Landing System marker beacons. DMEs reduce the need for less desirable step-down non-precision approach procedures in which a pilot descends to the minimum allowable altitude to visually locate the runway. DMEs lead to better specification and control over the vertical descent profile and reduces controlled-flight-into-terrain (CFIT) risk.

#### Activity: Sustain Distance Measuring Equipment (DME) Systems.

In FY22, the DME Program will provide program management, system engineering, logistics support, procurement of DME systems, to complete establish/replacement DME projects.

### **Target: Procure Distance Measuring Equipment (DME).**

Procure fifteen (15) DME systems.

# Target: Complete the Installation of Distance Measuring Equipment (DME) Systems. (CAM Goal)

Complete installation for five (5) DME establish/sustain projects.

#### **Initiative: Terminal Voice Switch**

Terminal Voice Switch Replacement (TVSR) II -The TVSR program manages NAS voice communications systems in the terminal environment through system replacements and continued sustainment efforts. These activities allow continuous availability of the following NAS services: air-to ground communications between controllers and aircraft, ground-to-ground communications between controllers, and emergency back-up communications.

#### **Activity: Terminal Voice Switch- Sustainment 2**

The TVSR program has been in place for more than 25 years. TVSR has historically undertaken deployments and sustainment efforts as required to keep the terminal switches operational. TVSR I started in FY89, and TVSR II started in FY95. Voice switches managed by the TVSR program include RDVS I, RDVS II, RDVS IIA, ETVS, STVS, and IVSR. RDVS, ETVS, and STVS were deployed in the 1990's and early to mid- 2000's. IVSR began deploying in 2005 and the IVSR contract with Frequentis, USA is now the only voice switch procurement vehicle available. The TVSR program office also manages Voice Switch By-Pass (VSBP) efforts; VSBP provides backup capabilities at terminal facilities

# Target: Terminal Voice Switch Sustainment (TVSS) Legacy Voice Switch Sustainment (LVSS)

Completion of Voice Switch By-Pass (VSBP) contract extension.

# Target: Terminal Voice Switch Sustainment (TVSS) Legacy Voice Switch Sustainment (LVSS)

Quality Reliability Officer (QRO) Approval of two (2) Small-Tower Voice Switches Technology Refreshment (STVS-TR) retrofit kits readiness for shipment to Key Site locations.

#### **Initiative: DVT Sustainment Program**

The Distance Measuring Equipment (DME), Very High-Frequency Omni-Directional Range (VOR), Tactical Air Navigation (TACAN) [DVT] Sustainment Program intends to provide long term sustainment of DME, VOR, and TACAN navigation services. DMEs provide slant range (Distance) information to all aircraft and enables RNAV service for air carrier aircraft.

Area navigation (RNAV) is a method of instrument flight rules (IFR) navigation that allows an aircraft to choose any course within a network of navigation beacons, rather than navigate point to point. VORs provide azimuth (position) information for en-route navigation and approach services. VOR navigation allows aircraft to fly point to point along established airways between VORs. TACANs provide azimuth information to military aircraft and slant range information to military and civilian aircraft.

#### Activity: DME/VOR/TACAN (DVT)

In FY22 the DVT Program will provide program management support for all the activities related to the management of the program, contractual documentation and procurement planning and completion of specification development.

#### Target: Release the Screening Information Request (SIR) announcement.

Complete activities needed to release the Screening Information Request (SIR) announcement.

#### Target: Complete specifications for the DME/VOR/TACAN (DVT) Program

Complete the update to the Very High Frequency Omni-Directional Range (VOR) Performance Specification.

# Initiative: Very High Frequency Omni-Directional Range (VOR) - Minimum Operational Network (MON) Implementation Program - Phase 2

The Very-High-Frequency Omni-Directional Range (VOR) MON Program is repurposing the VOR network in the contiguous United States (CONUS) to serve as a backup during Global Positioning System (GPS) outages. The scope of the program includes the following: program management, amendment/cancelation/replacement of Instrument Flight Procedures (IFPs), flight inspections of new service volumes, relocation of any services/equipment dependent on a VOR transmitter. The VOR MON program will transition the legacy network of 896 VORs in CONUS to a MON of approximately 590 VORs with an internal target date of FY 2030. The MON allows aircraft to navigate and land under Instrument Flight Rules (IFR) in the event of disruption in a GPS signal; however, the planned backup capability will be less than the current VOR network.

### Activity: Very High Frequency Omni-Directional Range (VOR) Minimum Operational Network (MON)

In FY22 the VORMON Program will complete the transition of legacy VORs. Legacy VOR routes and procedures will be cancelled, amended, or replaced, as necessary.

# Target: Discontinuance of Very High Frequency Omni-Directional Range (VOR) Minimum Operational Network (MON) (CAM Goal)

Complete the discontinuance of twenty five (25) Very High Frequency Omni-Directional Range Systems (VORs).

### Target: AJV- W3: Complete the JO 7400.2 NAVAID Discontinuance process in support of the VOR MON Program

Complete the JO 7400.2 NAVAID Discontinuance process to support the VOR MON Program's national discontinuance goal of twenty five (25) VORs.

# Target: AJV-E3: Complete the JO.7400.2 NAVAID Discontinuance process in support of the VOR MON Program.

Complete the JO.7400.2 NAVAID Discontinuance process to support the VOR MON Program's national discontinuance goal of twenty five (25) VORs.

#### Target: AJV-A: Complete Instrument Flight Procedures in support of VOR MON

Complete all Instrument Flight Procedure (IFP) activities required to discontinue twenty five (25) VORs. Due September 30, 2022

#### Target: AJV-P: Initiate Part 71 rulemaking actions required in support of VOR MON

Initiate Part 71 rulemaking actions required, upon receipt of Service Center OSG request packages, resulting from twenty five (25) VOR discontinuance determinations associated with the VOR MON program Phase 2 FY22 milestones. Due September 30, 2022

# Target: AJV-S: Provide required PBN procedure support for the discontinuance of twenty five (25) VORs.

Provide required PBN procedure support for the discontinuance of twenty five (25) VORs.

# Target: AJV-C3: Complete the JO 7400.2 NAVAID Discontinuance process to support the VOR MON Program

Complete the JO 7400.2 NAVAID Discontinuance process to support the VOR MON Program's national discontinuance goal of twenty five (25) VORs.

# Target: AJV-C2: Complete the instrument flight procedures coordination activities in support of the VOR MON Program

Complete the instrument flight procedures preliminary design/amendment/cancellation and coordination activities required to support VOR MON Program's national discontinuance goal of twenty five (25) VORs.

### Target: AJV-E2: Complete the instrument flight procedures coordination activities in support of the VOR MON Program

Complete the instrument flight procedures preliminary design/amendment/cancellation and coordination activities required to support VOR MON Program's national discontinuance goal of twenty five (25) VORs.

### Target: AJV-W2: Complete the instrument flight procedures coordination activities in support of the VOR MON Program

Complete the instrument flight procedures preliminary design/amendment/cancellation and coordination activities required to support VOR MON Program's national discontinuance goal of twenty five (25) VORs.

#### Initiative: NextGen Distance Measuring Equipment (DME) Program

Performance Based Navigation (PBN) uses Area Navigation (RNAV) and Required Navigation Performance (RNP) to improve access and flexibility in the National Airspace System (NAS) with the goal of providing the most direct and efficient aircraft routes possible. This begins with leaving the departure runway to arriving at the destination runway while also enabling right-sizing of conventional procedures and navigation infrastructure. PBN defines the requirements for routes and procedures that enable aircraft to navigate with greater precision and accuracy. It provides a basis for designing and implementing new flight paths, redesigning airspace, and providing safe obstacle clearance. In support of PBN, the objective of NextGen DME is to provide a resilient network to continue PBN operations during a Global Navigation Satellite System (GNSS) disruption.

### Activity: Procurement and Installation of Distance Measuring Equipment (DME) Systems

For FY22 the NextGen Program will complete activities for successful procurement and installation of critical Distance Measuring Equipment (DME) Systems and fill coverage gaps to enable DME Area Navigation (RNAV) aircraft.

#### Target: Complete the Installation of DME systems (CAM Goal)

Complete the installation of two (2) Distance Measuring Equipment (DME) Systems.

#### Target: AJW-W: NextGen DME Installation and Commissioning Support

Support activities to complete the installation and commissioning of one (1) DME system in FY22.

# Target: AJM-31: Support NextGen Distance Measuring Equipment (DME) Program to commission DME Systems

Support activities to commission two (2) DME system in FY22.

# Target: AJW-C: Support activities to complete the installation and commissioning of one (1) DME system

Support activities to complete the installation and commissioning of one (1) DME system in FY22.

# Target: AJW-143: Support activities to complete the installation of one (1) DME system at Wells, NV in FY22.

Support activities to complete the installation of one (1) DME system at Wells, NV in FY22.

### Initiative: ATO Headquarters Business Services Group - Use Information to Improve System Performance

The Business Services Group maintains budget line item allocations across Operations and Activity 5 appropriations for the Air Traffic Organization. The group prepares budget execution reports and analysis of financial activity to brief management; oversees and tracks Allowance Identification Documents (AID) forms transferring funds across the ATO; develops and analyzes budget requirements for the execution year to create spend plans that inform business decisions; gathers program requirements for future years to formulate budget requests to the Operations Review Board and preparation for program reviews; supports the purchase request process including requisition, funds certification, and approval. The group also serves as the ATO liaison with the Service Areas and Business Services Groups and is responsible for formulating and executing Hurricane/Disaster relief funds.

#### **Activity: Quality Improvement [Communication]**

AJG-R1 will focus on improving the predictability and understanding of the budget cycle across the ATO.

#### **Target: ATO Non-Pay Business Rules [Process]**

Manage process for interim updates to business rules as requested by ATO Deputy Vice Presidents with approval from ATO Vice Presidents and ATO Chief Operating Officer.

#### Target: Automated Calendar of Budget Actions and Deadlines [Delivery]

Refresh and publicize standard calendar of routine and known deadlines for new Fiscal Year in coordination with AJG-R1, 2, 3. Distribute updated calendar information to stakeholders through the BSG-RMG channels.

#### **Activity: Develop our Cadre of Analysts [Education]**

The Business Services Group continues to standardize, automate, and execute ATO's budget with the goal of serving as corporate stewards of our financial resources. To that aim, the BSG is striving to ensure our Financial Managers, Advisors and Analysts are equipped with the right tools and training to provide exemplary financial management to our customers.

#### **Target: Financial Management Training for Managers and Analysts [Image]**

In addition to complying with all mandatory financial management and agency-required training, each Financial Manager will enroll in at least one leadership and / or one customer service training class in FY22. Financial Advisors and Budget Analysts will enroll in at least one skill enhancing training course or seminar.

#### **Target: Financial Management Training for Managers and Analysts [Image]**

Pilot Back to Basics training for budget analysts in AJG-R1.

#### **Activity: Financial Management, Integration and Oversight [Integration]**

Strengthen the link between strategic planning and budget execution spend plans. Expand upon the deployment of the Financial Integrated Tool and its use and understanding across the ATO.

#### **Target: Customer Outreach [Process]**

Conduct biweekly calls with the R1, 2, 3 and include Administrative Services Group and other pertinent partners to discuss upcoming changes to policies, procedures, data calls, reporting and issues that will maximize efficiency across the Air Traffic Organization. Participate in annual customer outreach venues to help develop awareness around budget formulation and execution requirements.

#### **Target: Customer Strategy [Image]**

As a resource management shared service providers, AJG-R will seek to improve the delivery of shared services. AJG-R1 will continue to partner with service units to ensure their needs and requirements are fully understood and properly prioritized. Each Financial Manager will work closely with the Pay Team, the ORB team, R2 and others to ensure a holistic approach for the SU customers. Provide service units with monthly resource management reports that align with AJG's strategic initiatives. Review existing AJG-R reports for standard formatting and data visualization by December 31.

Update standard reports, e.g., cash and time-off award report, and brief to Service Units.

#### **Target: Service Alignment with Business Partners [Delivery]**

Meet with customers quarterly to ensure our service delivery model is meeting expectations. Review priorities to ensure our delivery of service is properly aligned to meet needs.

#### **Activity: Budget Execution Automation Activities [Automation]**

The Business Services Group will focus on developing an execution plan that will include communication, training, and updating process documents to reflect these changes.

# Target: Maintain and Analyze Budget Line Item Allocations for Ops and A5 [CORE WORK - Service Delivery]

Develop and execute communication, training, and updating process documents for any automation efforts.

# Activity: Execute ATO's Non-Pay Ops and A5 Budgets [CORE WORK - Service Delivery] Execute ATO's Non-Pay Budgets.

# Target: Maintain and Analyze Budget Line Item Allocations for Ops and A5 [CORE WORK - Service Delivery]

Adhere to Financial Management Integrity (FMFMIA) Act Guidelines and submit a Statement of Assurance to the COO by the end of the Fiscal Year. Manage hurricane/disaster data calls and reporting on a monthly basis, and manage the ATO's end of Fiscal Year process including providing carry forward estimates to ABP by July 2022.

### Initiative: Material Management and Procurement - Use Information to Improve System Performance

The Material Management and Procurement Group provides business critical services for the Air Traffic Organization (ATO) required to achieve their core mission. We deliver an array of services including wireless devices, personal property, emergency preparedness, real property and workspace management, facility security, acquisition support, and analysis. The group provides a variety of ATO acquisition management services provided by contracting officer representatives (COR)/technical officer representatives (TOR)/Engineering Technical Officers (ETO) including procurement planning, contract formation (pre-award), interpretation of contract requirements, contract administration (ensuring requirements are being met), contract modifications, contract performance monitoring, inspection and acceptance, payment including review of invoices, and contract closeout. In addition, the group provides corporate workspace management for ATO at headquarters and the Mike Monroney Aeronautical Center (MMAC) to meet organizational administrative space requirements. We coordinate leased workspace analysis decisions, workspace projects and office moves, OSHA compliance, and furniture procurement. The group also assists with the development of Facility Security Plans, assessment findings, security related training, risk assessments and access control management. Finally, the group manages ATO personal property at headquarters including computers, mobile phones, and tablet devices, wireless fulfillment services and assistance with corporate billing reconciliation, and E2 travel routing services for FAA employees.

# **Activity: Standardize Operating Procedures and Develop Core Reporting**[Communication]

Standardize operating procedures, and refine core reporting to: 1) clarify roles and responsibilities for our employees as well as our customers; 2) provide information to ensure all parties know what is required for the various services; 3) ensure core information and service status is being provided to our customers.

#### **Target: AJG-R2 Standard Operating Procedures [Process]**

Convert existing standard operating procedures (SOPs) for the group in a common template developed by the AJG Strategic Initiative. Streamline procedures across teams as appropriate. Continue to identify gaps where processes are missing and develop procedures accordingly.

#### Target: AJG-R2 Skill Inventory [Process]

Develop an internal, voluntary skills inventory via SharePoint, where group members can self-identify their skills and knowledge. This inventory will be available for group use to reach out to co-workers for assistance on job related projects and tasking. This will facilitate cross training and education amongst the group as well as aid in building closer working relationships.

# Activity: Refine, Communicate, Familiarize, and Implement Service Request Forms [Automation]

Delivering our mission and service information in an automated manner providing our customers with access to tools, processes, guidance, and policy. Automating our service request processes supports timely and transparent service delivery. This assists the team in Core Service delivery and increases efficiency by providing "1st level support". This reinforces our roles as trusted service providers, business advisors, and partners. Leveraging automation to enhance accessibility and provide additional information help to reduce duplication of effort and gain process efficiencies.

#### Target: Develop and Deploy ATO Wireless Fulfillment Tool [Delivery]

Maintain and enhance ATO Wireless efficiency initiative to improve control of the inventory, and effectively analyze account data to identify areas for cost reduction. To achieve these initiatives continue development and deploy the ATO Wireless Fulfillment Tool enabling on-line requests and approval of devices for efficient and speedy client delivery. Deployment will include a communication plan and training materials.

# Target: Acquisition Management – Communication and Familiarization of Service Request Forms and Process [Delivery]

Develop and deploy communication and familiarization Contract Support Request process and forms. Communication plan will include all appropriate methods to distribute and share information (i.e. emails, Websites, SharePoint, etc.) Efforts will also include familiarization of the process and forms utilizing all appropriate methods that may include training sessions, video instruction, user guides, etc.

# Target: Workspace Management – Communication and Familiarization of Service Request Forms and Process [Delivery]

Develop and deploy communication and familiarization of workspace management service requests process and forms. Communication plan will include all appropriate methods to distribute and share information (i.e. emails, Websites, SharePoint, etc.) Efforts will also include familiarization of the process and forms utilizing all appropriate methods that may include training sessions, video instruction, user guides, etc.

# Activity: Develop and Conduct Materiel Management and Procurement Training [Education]

Refine, coordinate and conduct training for internal and external customers, to assist them in achieving their organizational objectives. Identify and recommend training for group members to assist them in using new system/tools/technologies that support decision making and work processes. Leverage the skills of the team to further the financial services products and analytics deliverables.

#### **Target: Conduct and Refine ATO Contract Training [Delivery]**

Refine, coordinate and conduct ATO Contract Training on a bi-annual basis for ATO Service Units to ensure customers, stakeholders, and partners are familiar with acquisition regulations, policies, and processes. Training should include subject matter experts from the Office of Acquisitions (ACQ) and the Office of General Counsel (AGC) when possible. Training materials will be available. Continue partnership with the Office of Acquisitions on micro-learning.

#### **Target: Group Development and Training [Process]**

Identify eLMS training and assign to the group to include new systems and technologies that support decision making and work processes. Leverage the skills of the team to further the financial services products and analytics deliverables.

# Target: Mike Monroney Aeronautical Center (MMAC) Facility Security Program – Support of Security Protocols and Development of eLMS Escort training [Delivery]

Facilitate the development of training courses to ensure customers have a full understanding of Facility Security requirements and duties. This will involve development of two courses 1) Security Protocols and 2) Escort Official. Courses will include learning validation (Pass/Fail).

#### Activity: Materiel Management and Procurement Service and Report [Integration]

Coordinate the alignment Materiel Management and Procurement Services and Reports with Business Services, AJG-R1, and Budget Formulation and Formulation, AJG-R3 to support One Source, One Voice of Financial Services.

#### **Target: AJG-R2 Service and Report Integration [Delivery]**

Adopt at least one best practice across Teams by meeting with customers on a routine basis to provide status updates on workspace and facility security, contract status, wireless, and property. Continue integration efforts with Business Services, AJG-R1, and Budget Analysis and Formulation, AJG-R3, identifying and exploring communication opportunities. Participate in annual Financial Services Outreach sessions to include the Service Centers, MMAC, WTHTC, and Headquarters (all Service Units).

#### Activity: Administer Contracts [CORE WORK - Service Delivery]

Provide procurement planning, contract formation (pre-award), interpretation of contract requirements, contract administration (ensuring requirements are being met), contract modifications, contract performance monitoring, inspection and acceptance, payment including review of invoices, and contract closeout for AJG supported contracts.

### Target: Financial and Administrative Support Services for AJG-C [CORE WORK - Service Delivery]

Identify acquisition strategy for AJG-C follow-on organizational development, customer experience, and employee engagement contractor support services provided under Objective Area Solutions (OAS) contract.

#### Target: Exercise contract option for AJW [CORE WORK - Service Delivery]

Deliver the acquisition package and support the contracting office in finalizing the package for exercising option year 5 of the Arctic Slope Federal System Solutions contract. This contract provides second level engineering and program support for AJW-14, AJW-173/178, and AJW-17X. The current contract option will expire April 7, 2022.

#### Target: Inter-Agency Agreement for AJV [CORE WORK - Service Delivery]

Complete and deliver, to Department of Commerce, all documentation necessary for an Inter-agency agreement with National Oceanic Atmospheric Administration, NOAA, for security and support services for 175 AJV personnel at the Silver Spring offices by July 30, 2022.

#### Target: Single Source contract option for AJV [CORE WORK - Service Delivery]

Award single source contract to Environmental Systems Research Institute (ESRI) Geographic Information Systems (GIS) for maintenance of Visual Flight Rule (VFR) and Instrument Flight Rule (IFR) automation tools used to develop navigation charts for the NAS.

#### Target: Support Service Contract for AJV [CORE WORK - Service Delivery]

Deliver to the office of the Chief Financial Officer all pre award documentation for a 5 year \$30M technical services contract for Mission Support Services Policy (AJV-P) and AJV-International (AJV-I).

#### Target: Exercise contract option for AJG [CORE WORK - Service Delivery]

Establish follow-on NISC task orders to meet the needs of AJG customers. The majority of the current task orders end February 2022.

### Activity: Provide Workspace Management and Facility Services [CORE WORK - Service Delivery]

Coordinate workspace management and facility security activities for Headquarters and the MMAC

# Target: Execute the ATO Headquarter Workspace Plan supporting the National Capital Region (NCR) lease consolidation effort [Service Delivery]

Oversee and coordinate the relocation of ATO organizations in support of the Office of Aviation Property Management's NCR lease consolidation initiative.

#### **Target: ATO Operational Floor Phase I [Service Delivery]**

Oversee and coordinate the FB-10A 700 East renovation project for the Technical Operations Services that expands the suite to include the Directors. This effort supports the establishment of an ATO operational floor.

#### **Target: AJG NCR Workspace Consolidation [Service Delivery]**

Oversee and coordinate the AJG Return to Work plan as well as the workspace consolidation into FB-10A and FB-10B for AJG in support of the Office of Aviation Property Management's NCR lease consolidation initiative.

# Target: Mike Monroney Aeronautical Center (MMAC) Workspace Management Services for Lighting and Hangar Restrooms [CORE WORK - Service Delivery]

Support completion of the following MMAC Renovation Projects:

- 1. AJF Hangar 8 & 9. Refresh of multiple requirements project (AMP A&E funded);
- 2. AJV ANF1 Building 5 LED Light renovations 1st and 2nd floor.

# Activity: Support ATO end users with Wireless Devices [CORE WORK - Service Delivery]

Support ATO end users with wireless device needs and identify cost reduction opportunities. Create a document /process with criteria to identify/request bulk wireless request.

# Target: Support ATO Wireless Device End Users, Initiate Policy Review and Program Strategy Development to align with Future of Work (force/place). [CORE WORK - Service Delivery]

Continue to support ATO end users with wireless device needs and identify cost reduction opportunities. Establish an ATO-wide workgroup to evaluate and explore wireless device policy changes and corporate wireless device strategy that will align to future of work (force/place) initiatives.

### Target: Support ATO Annual Property Inventory and adjusting to Future of Work [CORE WORK - Service Delivery]

Engage all ATO service units on identifying and properly documenting accountable /non accountable Government Furnished Equipment (GFE) removed from the building, as well as GFE procured for end users to assist in telework.

### Initiative: Budget Analysis and Formulation - Use Information to Improve System Performance

The Budget Analysis and Formulation Group is Responsible for the formulation of the overall Air Traffic Organization (ATO) Operations and Activity 5 Budgets. Providing comprehensive financial services and analytical expertise that enables our customers to make informed decisions and address their budgetary needs. The group also serves as the ATO liaison with the Office of Budget (ABP) and Lines of Business's (LOBs)/Staff when it comes to addressing Office of the Secretary of Transportation (OST), Office of Management and Budget (OMB) and Congressional inquiries and budgetary needs.

#### Activity: Refine Customer Service [Communication]

Outline, implement and conduct financial strategies, techniques and procedures to improve internal and external communications with our Customers. Addressing ATO Budget Analysis, Formulation and Management resolving issues in a timely and efficient manner.

#### **Target: Business Analytics [Image]**

Provide internal processes and procedures on using the Standard Operating Procedure (SOP) Repository, Intake and Prioritization for BA Projects.

#### **Target: Budget Fiscal Awareness [Image]**

Provide direction to stakeholders, on a quarterly basis, to increase fiscal awareness and aid in formulation decision-making, gathering information on lessons learned, providing updates on training opportunities, new processes and procedures.

#### **Target: ORB Fiscal Awareness**

Schedule Operations Review Board (ORB) Meetings with stakeholders to increase financial awareness and exposure of the Agencies and or Organizations change in processes that will affect funding allowances and requirements.

#### **Target: Customer Feedback [Delivery]**

On a quarterly basis, obtain Customers/Stakeholders, Service Units (SU), Financial Managers (FM), AJG-P, Office of Budgets and Programs (ABP) feedback on Pay Automation Project Phase One (Staffing and Pay).

#### **Activity: Budget Process [Education]**

Share general knowledge and capabilities, through conversations and briefings, on products and services to increase Stakeholders level of reasoning, judgment and skill set advancing the education of our workforce to meet current and future challenges.

#### **Target: Data User Group [Process]**

Develop educational materials, briefings to management, applied product development, and consistent reinforcement of principles for the Data User Group.

#### **Target: Training [Process]**

Each Manager will enroll in at least one leadership training class in FY22. Analysts will enroll in at least one skill enhancing training course or seminar.

#### **Target: Budget Impacts [Image]**

Design and develop materials to educate our Customers on the ATO Budget process before the FY24 budget is due to Congress.

#### **Target: Schedule Routine Meetings with DVPs [Delivery]**

Provide the ATO Financial Community and DVPs with quarterly results of analysis and understanding of cost trends and spend structure to improve program related projections enabling planning to be based on facts rather than perception.

#### **Target: Service Units Engagement [Image]**

AJG-R38 will collaborate with AJG-P to create a strategy that defines the roles, responsibilities, and processes to manage staffing and pay, to include reporting of Actuals vs FIT Forecast vs Targets vs Authorized levels. Activities include but are not limited to common measures of staffing (what series, SF50 actions are included or not), position management, hiring plans, and total pipeline.

#### **Activity: Financial Strategies Development [Integration]**

Coordinate the alignment of the BSG's automation of the Financial Integrated Tool and Operations Review Board (ORB) Tool technology and business rules and objectives that align with customer funding requirements.

#### **Target: Initiative Support [Process]**

Engage team members in data and analytics communities of practice, e.g. ATO Data and Analytics Modernization (ADAM) Steering Committee, ATO Data Champion Initiative, and collaboration with other BI teams across the ATO/FAA to implement best practices.

#### **Target: Financial Strategies Development [Process]**

Work with our Internal and External Customers to develop multiple job aids and manuals to outline the processes for the ATO Budget.

#### Target: Assess performance and capabilities [Process]

Develop and implement Financial Strategies from program recommendations outcomes from the OPS ORB and F&E CIT collaboration.

#### **Target: Assess performance and capabilities [Process]**

On a quarterly basis, partner with AJG-R1, P1 and P2 to align systems to create Pay assumptions for decision on funding level targets, updating APAT workflow to reduce non-value added work and cycle time.

#### **Activity: Develop System Automation Efficiencies [Automation]**

Increase efficiency with analysis, forecasting and reporting activities

#### **Target: Data Sources and Reports [Process]**

Develop and implement reporting technology improvements for AJG-R stakeholders on adopting good analytics practices leading to measurable benefits.

#### **Target: ATO Dashboard [Image]**

Collaborate with our internal and external Customers on enhancement to the ATO Dashboard to allow the end user to view and drill down to the various levels for additional analysis and reporting activities.

#### **Target: DEMOS [Image]**

Enhance the AID and ACT module by incorporating reporting features, user-defined rules or conditions and training leading to measurable benefits.

#### **Target: Interface with Service Units [Image]**

Identify and automate recurring manual processes to minimize costs, increase efficiency, and streamline processes on the ATO Pay Dashboard. Review on a quarterly basis.

#### Activity: President's Budget Formulation [CORE WORK - Service Delivery]

OST and OMB require periodic information from the FAA to complete the annual FAA Budget. AJG-R3 will facilitate the appropriate activities in order to meet internal and external due dates.

#### Target: TOMs / DIRs [CORE WORK - Service Delivery]

Provide guidance and assistance to stakeholders in the development of Transition to Operations & Maintenance (TOMs) and Discretionary Increase Requests (DIRs).

#### Activity: Five Year Capital Investment Plan [CORE WORK]

Develop and coordinate the FAA Five Year Capital Investment Plan.

#### **Target: Abbreviated CIP**

Deliver the draft FY23-FY27 abbreviated Five Year Capital Investment Plan to ABP-310 for submission with the FY23 President's budget.

#### **Target: Five Year CIP Kickoff**

Initiate formulation of the FY24-FY28 Five Year Capital Investment Plan to include verification and validation of points of contact list; and, issuance of guidance, instructions, background information and other input for updating and editing of the detailed program plans to points of contact, business managers and program managers.

#### **Target: CIP Overview**

Deliver the final draft FY23-FY27 Five Year Capital Investment Plan Overview to AOA after facilitating the collaboration and coordination of its review through the ATO COO's office and other FAA LOBs.

#### **Initiative: AJG-R Strategic Planning Initiative**

Execute partnership goals with Office of Organizational Effectiveness which supports the AJG-R directorate develop clear and compelling vision, mission, goals, performance measures, or more that are practical for guide decision-making, prioritization, metrics that matter, and/or resource use, using collaborative processes that build strategic thinking, alignment, innovation, and commitment to execution. Disseminate strategic plan for areas of improvement on previously outlined focus areas. Analyze data from FY21 FedView results and implement strategies across the directorate to maintain high levels of scoring. Automate processes by developing Standard Operating Procedures (SOPs).

#### **Activity: Training and Growth [Education]**

To support Individual Development Plans, the directorate will provide a schedule of optional periodic training opportunities to support employee development and learning.

#### Target: Financial Services - Skill Assessment

Identify suggested and required training by job category for the directorate. Include new systems and technologies that support decision making and work processes. Leverage the skills of the team to further the financial services products and analytics deliverables in leadership, corporate culture, and technical competencies.

# Activity: Organizational Structure and Service Alignment with Business Partners [Integration]

The organizational identity is constantly underlined by a number of intentional actions and sources of information that lead to team success. Meet with customers to ensure our service delivery model is meeting expectations. Review priorities to ensure our delivery of service is properly aligned to meet needs. Attend quarterly program reviews with AJG-R Group Managers to address team needs and milestones, accomplishments, and areas for coaching.

#### **Target: Directorate Products and Services**

Maintain an updated directorate website in collaboration with AJG-C and, as quarterly, supporting any relevant KSN information to help our team and our customers easily identify the services provided and points of contact. Execute branding strategy to include a collection of templates and MS Teams repository with AJG-R recognizable graphics, style guides, and overall mission.

#### **Target: Business Analytics**

Align the Business Analytics function with FAA's Strategic Priority to work with, analyze, and leverage data to make decisions. Develop, integrate, and evaluate Business Analytics products for ATO Financial Services support information. Connect and communicate financial services information across all of the AJG-R groups in a standard way by establishing a data users group to review and standardize data sources. Using best practices, such as sandbox environments and agile development guidelines, provide analytics with user-friendly visualizations.

#### **Activity: Organizational Culture [Communication]**

Organizational culture encompasses values and behaviors that contribute to the environment of the business and involves constant communication, across all levels.

#### **Target: Directorate Engagement Strategy**

Hold bi-monthly directorate All Hands meetings to update staff on organizational news, team happenings, employee recognition, and other relevant information. Facilitate weekly group manager meetings with the team to discuss work items and address questions as a group. Promote employee/team recognition for services delivered through Wins of the Week (WOW) and Inspire Certificates and communicate with staff on entry/award process. Host timely employee engagement activities to celebrate milestones, holidays, and amplify team morale. Elevate MS Teams social channels listing for employees to connect, share ideas, and have a sense of inclusion. Host Deputy Director Open Office Hours as an additional informal connection point for staff. Produce monthly communication featuring light topics, tips, articles, and timely information.

#### **Initiative: Enhanced Resource Efficiency**

Advance collaboration and integration across System Operations through personnel support, contract management, and financial services to add value for NAS stakeholders.

#### **Activity: Finance and Budget**

Manage budget formulation and execution while achieving a 95% success rate in the areas of Financial/Budget and Contract management. Provide standardized business services to System Operations while ensuring proper stewardship of allocated resources through internal control programs.

#### **Target: Generate Financial Data**

Collaborate with FAA/ATO business and financial services organizations to provide timely delivery of OPS/F&E funding requirements and contracts documentation. Ensure all Budget activities for System Operations remain within the overall 5% established variance.

#### **Activity: Staffing and Recruitment**

Establish program improvements that model a streamlined recruitment and staffing program for System Operations. Enhance workforce-planning activities to attract, develop and retain employees with the required skills and competencies that align with the organizations mission. Working with our ATO/FAA partners, we are also committed to fostering a more diverse and inclusive workplace through strategic hiring, training, and succession plans. Through these strategies, we will hone effective leaders, engage employees, attract and retain the talent and skillsets needed to serve a changing NAS, and create the workforce of the future.

#### **Target: Identify Key Milestones for Hiring**

Identify key milestones for hiring a diverse and qualified workforce consistent with FAA initiatives through effective hiring strategies and practices, succession planning, and resource planning. Achieve 95% success rate.

#### **Target: Initiate Draft of Three-Year Staffing Plan**

Initiate AJR-R three-year staffing plan.

#### **Initiative: NY Operational Initiative**

As identified with industry stakeholders, continue implementing operational initiatives at the New York Metropolitan airports.

#### **Activity: AJT-E NY Operational Initiative**

As identified with industry stakeholders, continue implementing operational initiatives at the New York Metropolitan airports.

#### **Target: Support the NextGen Internal Working Group (NIWG)**

Support the NextGen Internal Working Group (NIWG) to facilitate implementation of NEC initiatives including furthering development of an RNAV replacement for LGA 31 Expressway Visual that provides vertical guidance.

#### **Activity: AJV-E NY Operational Initiative**

As identified with industry stakeholders, continue implementing operational initiatives at the New York Metropolitan airports.

#### **Target: Teterboro Airport**

Track and complete all critical path Integrated Master Schedule (IMS) activities related to Teterboro Airport RWY 19 Instrument Landing System (ILS) and for the installation of the TEB RWY 06 Distance Measuring Equipment (DME) that is collocated with the RWY 06 LOC.

#### **Target: Special Authorization CAT II**

Track and complete activities for publication in support of the implementation of Special Authorization CAT II for PHL RWY 27L to provide an alternate low visibility approach when primary approach runways are closed.

# Initiative: Visual NavAids - Approach Lighting System Safety Enhancement - Landing and Lighting Portfolio

The Approach Lighting System Safety Enhancement Program upgrades approach lighting systems built before 1975. The project upgrades the equipment to current standards and reduces the potential severity of take-off and landing accidents by replacing rigid structures with lightweight and low-impact resistant structures that collapse or break apart upon impact. The entire approach lighting system is replaced when rigid structures are replaced. The High Intensity Approach Lighting System with Sequenced Flashing Lights (ALSF-2) provides visual information on whether the pilot is aligned with the runway centerline, the aircraft's height above the runway plane, roll guidance, and horizontal reference for Category II and III Precision Approaches. The MALSR provides visual information on runway alignment, height perception, roll guidance, horizontal references for Category I Precision, and Special Authorization Category II Approaches.

#### **Activity: Complete upgrades to Approach Lighting Systems.**

For FY22 the Approach Lighting System Safety Enhancement Program will complete activities to procure Light-Emitting Diode (LED) Lamps and install MALSR systems.

#### **Target: Award Light-Emitting Diode (LED) Lamps Contract**

Award Light-Emitting Diode (LED) Lamps Contract.

Target: Complete activities to install Medium Intensity Approach Lighting System with Runway Alignment Indicator Lights (MALSR) Systems (CAM Goal)

Install one (1) Medium Intensity Approach Lighting System with Runway Alignment Indicator Lights (MALSR) System.

#### Improve Sustainability, Mitigate Noise, and Reduce Emissions

Lead aviation sector efforts to improve sustainability, mitigate the effects of aviation noise, and reduce emissions.

#### **Initiative: Community Engagement**

Continue to develop communication tools that increase transparency of Agency airspace actions and offer the opportunity for continued engagement.

#### Activity: Advance Community Engagement with Artificial Intelligence (AI) Chatbot

Increase FAA's Community Engagement activity by Launching a Web-Based Chatbot that will be used to create transparency and direct users to frequently asked questions about aircraft noise.

#### Target: Advance Community Engagement with Artificial Intelligence (AI) Chatbot

Launch a Community Engagement Frequently Asked Question Noise Chatbot that uses artificial intelligence software to understand conversational phrases and work autonomously to generate responses and collect data for process improvement.

#### **Target: Web-Based Chatbot Spanish Version**

Use Machine Learning to train the FAA Community Engagement Frequently Asked Questions Noise Chatbot that uses artificial intelligence software to understand Spanish conversational phrases and work autonomously to generate responses and collect data for process improvement.

#### **Activity: Develop and Implement Communication Guidance Post Airspace Projects**

Develop and implement guidance for communication guidance with airports, elected local, state and congressional offices and other regional stakeholders after airspace projects are complete.

#### Target: Parameters for Reporting Method of Communication with Service Centers

Develop Standard Operating Procedures/guidance on communication with the airport/community Post implementation of airspace projects.

#### **Agile Services Across the NAS**

Develop a comprehensive and agile set of requirements and processes to integrate traditional and emerging users of the National Aerospace System to determine appropriate infrastructure and operational needs of any given facility or airspace.

Initiative: Establish a Framework for a More Agile Structure of Services and Service Levels across the NAS.

Establish a Framework for a More Agile Structure of Services and Service Levels across the NAS.

Activity: Inventory a representative set of current processes, methods, and criteria currently used across the agency.

Compile a synopsis of sample programs/initiatives and leverage findings to support this activity.

Target: Compile a synopsis of the policies, processes and attributes for the following Use Cases: FAA Contract Tower (FCT) Program [AJT led], National Plan of Integrated Airport Systems (NPIAS) [ARP}], Performance Based Navigation (PBN) and other systems.

Compile a synopsis of the policies, processes, and attributes for the following Use Cases: FAA Contract Tower (FCT) Program [AJT led], National Plan of Integrated Airport Systems (NPIAS) [ARP], Performance Based Navigation (PBN) Strategy [ANG], VHF Omni Direction Range (VOR) Minimum Operational Network (MON) [AJM], Space Integration Strategy [AST], ATO UAS Services Plan [AJV-S], and Advanced Air Mobility (eVTOL) [AVS]. Include assumptions, definitions, and criteria.

### Target: Identify existing Service Levels, System Services, and related criteria to develop a common definition for NAS services.

Identify a preliminary set of aggregated existing NAS System Services and Service Levels assumptions, definitions, and criteria.

### Activity: Develop consensus among ATO executives on the initial structure of services/service levels framework.

Leverage sample program/initiative findings from FCT, NPIAS, PBN, VOR MON, Space Integration Vision, ATO UAS Service Plan, and Advanced Air Mobility to support this activity.

### Target: Refine the preliminary set of NAS Service Categories; include assumptions, definitions, and criteria.

Refine the preliminary set of NAS Service Categories; include assumptions, definitions and criteria.

### Target: Identify a preliminary set of NAS Service Categories with tiered NAS Services/Service Levels.

Identify a preliminary set of NAS Service Categories with tiered NAS Services/Service Levels.

### Target: Draft a preliminary process outline for provisioning of agile NAS Services and Service Levels.

Draft a preliminary process outline for provisioning for provisioning of agile NAS Services and Service Levels.

#### **Activity: Initial Service Level Analysis.**

Develop a common definition for NAS services that allows for better analysis of the varying levels of demand.

#### Target: Identify existing Service Levels, System Services.

Identify existing Service Levels, System Services, and related criteria to develop a common definition for NAS services.

#### **Target: Develop categories.**

Develop categories based on criteria identified in Target 1 and provide draft identification of NAS services into those tiers (considerations could include cost of system/service, demand at facility, forecasted future demand/new entrants, etc.).

#### Initiative: Integration of UAS Operations into the NAS

Integrate new entrants including Unmanned Aircraft System (UAS) and Urban/Advanced Air Mobility (UAM/AAM) operations into the National Airspace System (NAS) without introducing unacceptable levels of risk, while providing a secure and more efficient system.

#### **Activity: Enhance Awareness of UAS**

Enhance awareness of new activities through multi-platform efforts informing concerned/affected parties of changes to policies related to UAS.

#### **Target: Awareness of Current UAS Initiatives**

Develop topics and schedule briefings for impacted personnel at various levels to ensure awareness of current UAS initiatives, policies, guidance and trending topics. (Supports PA#1 Activity).

#### Target: Training needs related to UAS and UAM/AAM

Identify training needs related to UAS and UAM/AAM operational concepts and technologies. Support modification of current training products, and assist in the development of new training as required for Air Traffic operational personnel. (Supports PA#1 Activity)

#### **Target: Facility Support for UAS operational requests**

Provide facility support related to establishment of and updates to their UASFM altitudes, LAANC, DroneZone, security events, detection and mitigation equipment, and addressing any other UAS operational requests.

#### **Activity: Drive Integration of UAS**

Provide input during identification and development of updated rules, policies, standards, and procedures regarding UAS and UAM/AAM operations in the NAS.

#### **Target: Safety Risk Management Panels**

Safety Risk Management Panels – Participate in SRMP activities and provide assistance/guidance for local SRMP activities for UAS.

#### **Target: Support UAS Integration through Workgroup Participation**

Participate in workgroups supporting UAS integration and modernization through the development of airspace policies, concepts, procedures and systems utilized in the NAS.

#### **Target: Initiate Requests to Update Policies and Procedures**

Identify need for and initiate requests to update policies and procedures related to UAS operations.

#### **Target: Inform of Changes to Coordination Policies and UAS**

Assist in the development of rule updates and changes normalizing UAS operations. Enhance UAS awareness through multi-platform efforts to ensure that concerned/affected parties are informed of changes to coordination policies and UAS.

#### **Initiative: Special Activity Airspace (SAA)**

Develop a comprehensive and agile set of requirements and processes to integrate traditional and emerging users into the National Airspace System.

#### Activity: Policy Guidance Update to Special Activity Airspace (SAA)

Provide updates to policy to support modernization for the establishment and administration of Special Activity Airspace (SAA).

#### **Target: Special Activity Airspace Analysis**

Analyze the definition for Special Activity Airspace (SAA) to identify any updates which will support the modernization and administration of SAA. Submit draft Document Change Proposals (DCPs) for requirements validation, as appropriate.

Target: Guidance on the National Environmental Policy Act (NEPA) Analysis Process for Air Traffic Control Assigned Airspace (ATCAA) and National Environmental Policy Act (NEPA) requirements for Air Traffic Control Assigned Airspace (ATCAA)

Assess requirements set forth in the established guidance on the National Environmental Policy Act (NEPA) analysis process for Air Traffic Control Assigned Airspace (ATCAA) and National Environmental Policy Act (NEPA) for Air Traffic Control Assigned Airspace (ATCAA) for applicability to current processes. Submit draft Document Change Proposals (DCPs) for requirements validation, as appropriate.

#### **Target: Environmental Review Process**

Review the current environmental process that occurs when airspace proposals are submitted for environmental review. Identify efficiencies that will streamline the environmental review process. Submit draft Document Change Proposals (DCPs) for requirements validation, as appropriate.

### Initiative: ATO UAS Services Plan Priority 5 – Standardize UAS Operations with Security Stakeholders

The ATO must advance aviation and airport safety and security and work across industry and government on steps to safeguard airports from UAS incursions. With this focus area, the ATO places a heavy emphasis to address safeguarding airports from the threat of UAS while simultaneously ensuring that safe integration of UAS operations into airports can proceed. The FAA must ensure technologies associated with UAS operations maintain the utmost level of security (e.g. detection, mitigation, and risk management). The ATO must establish, develop, and maintain processes for engagement with stakeholders including Federal entities and support efforts associated with regulatory, policy, requirements and specifications for detection and mitigation of UAS hazards to the NAS. The ATO is defining processes for engagement with Federal entities who are deploying and using C-UAS technologies at sensitive locations and working with the Office of Airports (ARP) and the Office of NextGen (ANG) to deploy trial systems at U.S. airports to assess, test, and evaluate the impact of detection and mitigation systems on the NAS.

#### **Activity: Unmanned Aircraft Systems (UAS) Operations Security**

Manage FAA concurrence of authorized federal security agency C-UAS technology integration into the NAS. C-UAS integration includes, but not limited to intra- and inter- agency stakeholder engagement, federal policy development, implementation, and improvement, and risk assessment evaluation. Manage ATO security equities as it pertains to the continued integration of UAS into the NAS.

#### **Target: UAS Planning**

Develop and finalize all standard operating procedures for Counter UAS (C-UAS) submission reviews.

#### **Target: UAS Detection and Mitigation**

Implement plans to leverage the recently completed Safety Risk Management (SRM) to streamline the coordination policy. Additionally incorporate the same SRM into the Hornet notification process to mitigate activation impact to the NAS.

#### **Target: UAS Security Operations Integration**

Develop and implement UAS security process for inclusion in UAS on airport Certificate of Authorization (COA) request safety reviews.

#### **Target: C-UAS Interagency Coordination**

Develop and implement SHORT-Cut Counter Unmanned Aircraft System (C-UAS) interagency notification process. Enable SHORT-Cut processes, which focus on those C-UAS systems determined in advance to pose minimal risk to the National Airspace System (NAS), including Air Navigation Services (ANS) systems and civil aircraft avionic, to streamline FAA efforts to deconflict C-UAS usage with the NAS' safety and efficiency requirements.

#### Initiative: ATO UAS Services Plan Priority 1 – Drive UAS Integration

UAS concepts like UAS Traffic Management (UTM) and Advanced Air Mobility (AAM) are defining future NAS architectures to accommodate new NAS users. The ATO is looking at these concepts to identify the air traffic services required to enable these concepts and working with stakeholders early to ensure successful concept execution. The ATO is looking at its core services to identify the changes necessary to accommodate increased and varying UAS operational types. This includes looking at NAS infrastructure (e.g. spectrum, communications) to identify implications for UAS use of these along with ensuring the ATO's support processes are equipped to assess UAS (e.g. safety risk management processes and outreach/training).

#### Activity: Provide semi-annual UAS hot topic briefings

Provide semi-annual UAS hot topic briefings at district/general manager meetings and a separate more thorough briefing to operational management.

#### **Target: ATM/OM Briefings**

Provide an annual briefing to a targeted audience of ATM/OM level attendees.

#### **Target: Provide semi-annual briefings**

Provide semi-annual briefings to a targeted audience of GM/AGM level attendees of current UAS initiatives, policies, guidance and trending topics.

### Activity: As new concepts, policies and entrants enter the NAS, determine the training requirements for field personnel

Identify the training needs related to UAS concepts and technologies as new policies or operational types enter the NAS. Engage with predetermined facilities to survey and interview workforce.

#### **Target: Ascertain potential training gaps**

Utilize processes such as Gap Analysis, surveys, forum feedback or other suitable methods to identify training needs.

#### **Target: Training products**

Support modification of current training products and assist in the development of new training as required for Air Traffic operational personnel.

#### **Activity: ATO UTM Planning**

Support ATO planning of UTM services.

#### **Target: Assess BVLOS ARC Recommendations**

In collaboration with ATO stakeholders, assess BVLOS ARC recommendations and incorporate into UTM strategic planning.

#### Target: Define the ATO UTM Operational Priorities, Objectives, and Outcomes

In collaboration with ATO stakeholders, define the operational priorities, objectives, and outcomes that will drive strategic planning to enable required UTM ATO services.

#### **Activity: ATO UAM Planning**

Support NASA engagement to explore UAM concepts, and develop ATO plans to support integration of UAM services.

#### **Target: Develop UAM ATO Priorities**

Complete use cases and gap analysis to identify an initial set of UAM ATO equities.

#### **Target: Develop UAM ATO Corporate Plan version 1.0**

In collaboration with ATO stakeholders, define a strategy and action plan to enable required UAM ATO services.

#### **Activity: Safety Risk Management Activities on Drone Collisions**

Conduct Risk Analysis (URAAT)

#### **Target: Conduct Risk Analysis (URAAT)**

Further the FAA's mission of safe integration of UAS operations by facilitating SRM panels using the URAAT and providing safety documentation to inform decision-makers in alignment with strategic initiatives, through collaborating with stakeholders, coordinating data to support safety assessments, and setting national policy that improves upon the safety process specific to UAS. Conduct at least one SRM panel by March 31, 2022 using URAAT, and continue improvements throughout the fiscal year.

#### **Activity: Implement UAS Risk-Based Safety Management**

Develop Machine Learning Capabilities.

#### **Target: Develop Machine Learning Capabilities**

Investigate and implement machine-learning models to detect various types of events, such as UAS encounter detection and wrong surface detection by leveraging MITRE voice transcription data.

#### **Initiative: AJV - Airspace Modernization**

The goals of the modernization include using new technologies and procedures to increase the safety, efficiency, capacity, access, flexibility, predictability, and resilience of the NAS while reducing the environmental impact of aviation.

#### Activity: Reduction of Legacy and Underutilized IFP's

Complete National Procedure Assessment (NPA) activities supporting the reduction of legacy and underutilized IFPS and implementation of a resilient NAS navigational infrastructure under the PBN NAS Navigation Strategy.

#### Target: Reduce legacy and underutilized Instrument Flight Procedures (IFP)

Reduce legacy and underutilized procedures by at least 330.

#### **Activity: Convert Publications to Single-Column Format**

Convert the Portable Document Format (PDF) version of four major AJV publications from the existing two-column format to single-column format to comply with FAA Order 1320.1E, FAA Directives Management. Per FAA Order 1320.1E, directives should use single-column format with the exception of tables.

#### **Target: Convert FAA Order JO 7610.4 to Single-Column Format**

Convert FAA Order JO 7610.4, Special Operations, to single-column format and post on the Air Traffic Procedures website.

#### **Target: Convert FAA Order JO 7340.2 to Single-Column Format**

Convert FAA Order JO 7340.2, Contractions, to single-column format and post on the Air Traffic Procedures website.

#### **Target: Convert FAA Order JO 7350.9 to Single-Column Format**

Convert FAA Order JO 7350.9, Location Identifiers, to single-column format and post on the Air Traffic Procedures website.

#### **Target: Convert the AIP to Single-Column Format**

Convert the Aeronautical Information Publication (AIP) to single-column format and post on the Air Traffic Procedures website.

#### **Activity: Performance Based Navigation (PBN)**

Performance Based Navigation (PBN) delivers new routes and flight procedures that primarily use satellite-based navigation aids and on-board aircraft equipment to navigate with greater precision and accuracy. The FAA has completed or is at some point in the evaluation or implementation phase for 11 metroplexes—metropolitan areas with multiple airports and complex air traffic flows—to provide a successful way to de-conflict airspace in such locations, which expands efficiency gains that ripple to other areas.

#### **Target: Metroplex Program Close-out**

Complete close-out of the Metroplex program. Develop an executive summary close-out document detailing project site activities and accomplishments. Summarize financial costs including operations, overtime and F&E expenditures.

### Target: Metroplex at LAS: Post-implementation Phase Complete - NAC Recommendation

Implement Metroplex at LAS: Post implementation phase complete.

#### **Activity: Enhanced Air Traffic Services (EATS)**

Section 547 of the FAA Reauthorization Act of 2018, directs the FAA Administrator to establish an Enhanced Air Traffic Services (EATS) pilot program, which shall provide air traffic control (ATC) services on a preferential basis to aircraft equipped with certain NextGen avionics. This program shall take place for at least 2 years, at least 3 suitable airports, for at least 3 hours each day. This pilot program is meant to support the business case for aircraft operators to equip with these avionics by providing preferential service to capable aircraft. Implementation NLT September 2021–2023.

#### **Target: Monitor Pilot Program Locations**

Track performance of the three pilot program locations.

# Activity: Implement active referencing of Pilot/Controller Glossary (P/CG) terms in air traffic publications

Convert all static references to the P/CG terms across major air traffic publications to active hyperlinks for better navigation, usability and enhancement of the web content. Publish the updated/improved publication content to the air traffic publications website.

#### Target: Implement P/CG terms linking in order JO 7110.10, 7110.65, and 7210.3

Conduct analysis of the publication content to validate requirements and usability. Write code to make static P/CG referenced terms hyperlinks across the target publications. Run usability test on the result and publish to the air traffic publications website.

#### Target: Implement P/CG terms linking in AIM and AIP

Conduct analysis of the publication content in coordination with AJV-P specialists and the publication team for input on requirements and usability. Write code to make static P/CG referenced terms hyperlinks across the target publications. Run usability test on the result and publish to the air traffic publications website.

#### Target: Implement P/CG terms linking in order JO 7400.2 and 7930.2

Conduct analysis of the publication content in coordination with AJV-P specialists and the publication team for input on requirements and usability. Write code to make static P/CG referenced terms hyperlinks across the target publications. Run usability test on the result and publish to the air traffic publications website.

#### **Activity: Low-level Helicopter IFR Routes in Maine**

Congress has recommended that the FAA design and implement a helicopter route system in the State of Maine for high-performance low-level Instrument Flight Rules (IFR) operations to connect to various hospital helipads and other locations in support of air ambulance emergency operations in Instrument Meteorological Conditions (IMC). This activity supports a National Transportation Safety Board (NTSB) recommendation for the development of a low-altitude airspace infrastructure for air ambulance helicopters

### Target: Develop national strategy for RNP .3 IFR helicopter routes for Air Ambulance operations

Establish a draft national strategy for Required Navigation Performance (RNP) 0.3 Instrument Flight Rules (IFR) helicopter routes.

### Activity: IFP, Operations, Airspace Analytics (IOAA) tool enhancements and management

IOAA is a web-based, interactive analytic tool for rapid and flexible analysis of airport operations, IFPs and utilization, and aircraft performance. IOAA integrates the functionality of the legacy PBN Dashboard and AFS Data Analytics Tool into one capability.

#### Target: IOAA tech transition plan for long term IOAA sustainment and evolution

Plan includes Stakeholder agreement on the tech transition plan for long term IOAA sustainment and evolution and a draft planning document.

# Target: Release of improved procedure conformance/usage, reroute, and shortcut/vector metrics within IOAA

Improve the IOAA tool by enhancing procedure conformance/usage, reroute, and shortcut/vector metrics

#### **Activity: Instrument Flight Procedure Dashboard**

Develop a comprehensive scoping and scheduling tool to determine workload, resources, and constraints associated with airspace modernization activities.

### Target: Develop a Core 30 airport dashboard model for scoping IFP development work

Develop an initial scheduling tool model for procedure development

#### Target: Streamline how data is collected and stored and accessed

Determine how IFP data is collected, stored and accessed. Develop a process of monitoring the continuous IFP lifecycle. Identify how the data would ideally be produced in the future system.

Identify how the system would need to change to produce the data (requirements) and develop new or amended processes to produce data according to the needs (more completely, more frequently, more timely, etc.) in support of recurring health checks for non-Core 30 airports. Develop a plan to implement these requirements.

#### **Activity: Update NOTAM Term in Air Traffic Publications**

Update Air Traffic publications to reflect the universal change of the term "Notices to Airmen (NOTAM)" to "Notices to Air Missions (NOTAM)."

#### **Target: Update Cyclical Air Traffic Publications**

Update the Notice to Air Mission (NOTAM) term in the cyclical Air Traffic publications (FAA Order JO 7110.10, FAA Order JO 7110.65, FAA Order JO 7210.3, FAA Order JO 7340.2, FAA Order JO 7400.2, FAA Order JO 7610.4, Aeronautical Information Manual (AIM), Aeronautical Information Publication (AIP), and the Pilot/Controller Glossary (P/CG).

#### **Activity: IFPA Sustainment 2**

Instrument Flight Procedures Automation (IFPA) Sustainment 2 (CIP#:A14.02-03): The FAA IFPA program is a mixed lifecycle information technology suite, including an upgrade of both commercial off-the-shelf (COTS) hardware and software. The IFPA tool suite provides functionality for aeronautical information specialists to design, develop and maintain instrument flight procedures for navigation of the NAS. The Terminal Area Route Generation, Evaluation, and Traffic Simulation (TARGETS) system will progress through a series of iterations to provide new capabilities to support design and development of Instrument Flight Procedures (IFP). The objective of each phase or iteration is to advance the software to a level that provides increased functional capability.

### Target: IFPA Sustainment 2: IFPA Targets Initial Criteria Software Requirements Specifications

IFPA (A14.02-03): IFPA TARGETS initial Criteria Software Requirements Specification (CSRS) for Instrument Landing System (ILS) Category (CAT) II/III and Special Authorization (SA) CAT I/II approach completion.

#### **Activity: Airspace Modernization Roadmap**

Develop a process for scoping and executing airspace modernization projects to include regulated airspace, airspace re-sectorization, and instrument flight procedures to support the PBN NAS Navigation Strategy.

#### Target: Develop a draft airspace modernization roadmap document

Develop a first draft of the Airspace Modernization Roadmap for coordination and review.

### Target: Incorporate the PBN NAS Navigation Strategy goals into the Airspace Modernization Roadmap

Develop a comprehensive plan for incorporation of the high-level Performance Based Navigation (PBN) National Airspace System (NAS) Navigation Strategy goals into the Airspace Modernization Roadmap. Coordinate the plan across the FAA Air Traffic Organization and ensure the current status and plan for the goals is reflected in the Roadmap.

#### **Activity: Future Flow Management (FFM) Planning**

Future Flow Management (FFM) builds on the FAA's initial Trajectory Based Operations (iTBO), to evolve traffic flow management (TFM) towards TBO. The FFM ATO Corporate Plan provides the blue print for the transformation of today's TFM into a dynamic, flexible, and agile system of systems, providing for efficient, equitable management of NAS demand/capacity imbalances as they may arise in the Trajectory-Based Operations (TBO) environment, and as they affect increasingly diverse NAS user/stakeholders.

#### **Target: TFM emerging needs**

Complete assessment on Alignment of ATO activities (e.g., PMO implementation programs, AJT TBO efforts) with FFM Action Plan

#### **Target: Candidate concepts for streamlined future TFM services**

Conduct maturity assessment of candidate concepts (previous/current) to mitigate latent/ emerging TFM shortfalls, recommendations for flexible and rapid functionality delivery, in alignment with FFM Action Plan.

#### **Initiative: Remote Towers**

The FAA will work with commercial vendors to support approval of Remote Tower Systems. These systems will potentially provide more cost effective solutions to traditional brick and mortar towers, especially for smaller rural communities.

#### **Activity: Remote Towers**

In accordance with Section 161 of the FAA Reauthorization Act of 2018, Pub. L. 115–254, Remote Tower Pilot Program for Small and Rural Communities (the Act), the FAA is diligently investigating the use of Remote Tower technologies for use in the National Airspace System. FY22 is focusing on 1) developing technical requirements and evaluating the technology through Type Certification process, 2) evaluating operational feasibility at the 2nd pilot site, and 3) developing the policies and process for enabling Remote Tower system to be used in the NAS.

#### **Target: Remote Tower Technical Requirements Version 3**

Complete version 3 of the Remote Towers draft technical requirements document for systems providing Class D services in a visual flight rules environment at single-runway airports. This version will incorporate updates made as a result of comments received internally and from remote tower vendors on version 2. Version 3 is intended to be used as a key part of the approval basis for Remote Tower Systems type certification.

#### **Target: Remote Tower Type Certification Compliance Matrix**

Complete Type Certification compliance matrix for Remote Tower (RT) systems providing Class D services in a visual flight rules environment at single-runway airports. The compliance matrix will be implemented in the DOORs requirements management tool, allow the FAA to map type certification requirements to applicant requirements and verification products, and will facilitate applicant compliance status reporting.

#### **Target: Saab Remote Tower Type Certification Compliance Matrix Status Report**

Generate a Type Certification compliance matrix status report for Remote Tower (RT) systems providing Class D services in a visual flight rules environment at single-runway airports. The compliance matrix status report will provide a snapshot of the Saab RT system type certification compliance status.

#### Initiative: National Airway Systems Engineering AJW-14

National Airway Systems Engineering provides second level engineering support to many organizations inside and outside the FAA through Field Support, Modification/Documentation, and New System Acquisition Support.

#### Activity: National Airway Systems Engineering Group Project Delivery

Implementation of modifications, tech refreshes, software releases, sub-systems replacements, and implementations.

#### **Target: Saab - Sensis SMR Implementation**

Replace Raytheon surface movement radar (SMR) subsystem with Saab-Sensis SMR subsystems at two (2) ASDE-X equipped airports.

#### **Target: ATAP Implementation**

Complete ASDE-X Taxiway Arrival Prediction (ATAP) implementations at two (2) airports

#### **Target: ASSC Software Release**

Complete ASSC Taxiway Arrival Prediction (ATAP) implementation at seven (7) airports

#### Target: Deploy enhanced ASR-9 False Target mitigation capabilities

Successful Modification Testing at two keysite locations.

#### Target: Reduce Mode-S False Targets and improve track position accuracy

Release Mode-S Software with Multi-Purpose Radar Processing (MRP) enhancement via National SSM.

#### Target: ATCBI-6 TDM to IP

Successful Modification Testing at one beacon only keysite location.

#### Target: Improve ASR-8 CTD Weather Product for ATC

Release SSM for CTD Software Build Upgrade.

#### Initiative: Energy Cost Savings Management and Compliance F13.04-02

Reduce operating costs related to energy and water consumption

#### **Activity: Energy Cost Savings and Compliance**

Facilitate ATO-wide reductions of energy and water use by adopting best industry practices and integration of cost-effective, energy-efficient technologies.

#### **Target: Energy Cost Savings**

Reduce ATO energy consumption and greenhouse gas (GHG) emissions by completing five (5) energy and water improvement projects.

#### **Initiative: AJW-13 NAS Integration and Support Group**

Oversee Capital Investment Programs along with NEXTGEN integration and implementation of systems in the NAS. We provide the policies, management visibility, and processes for Technical Operations lifecycle management support for NAS systems through initial acquisition, solution implementation, and receipt, installation, maintenance, and final disposition of equipment. We provide tracking and control, maintenance operational concepts, maintenance policies, sustainment requirements, Human Systems Integration, remote maintenance monitoring requirements and supply support requirements to the Program Management Office, NEXTGEN Office and Mission Support Organizations.

#### **Activity: Maintenance Support Program/Shared Service Partnership Agreement**

Spare parts are managed through the Field Spares Inventory Program (FSI) and Supply Chain Optimization (SCO).

#### **Target: Shared Service Partnership Agreement**

Complete alignments of 15 each ASR facilities to True North.

#### **Initiative: AJW-14 National Test Equipment Program M17.01-01**

The National Test Equipment Program (NTEP) is responsible for the purchase, calibration, maintenance, and management of FAA test equipment at over 41,000 sites. The program ensures the NAS equipment operates within technical and safety specifications. The test equipment is used by technicians to troubleshoot, repair, and certify new and legacy systems. Operational NAS systems must be certified by this test equipment before being returned to service.

#### **Activity: National Test Equipment Program (NTE)**

Test Equipment

#### **Target: National Test Equipment Program**

Purchase and delivery of 200 pieces of Test Equipment and the reduction of 400 units of obsolete test equipment across the Service Areas

#### Initiative: AJW-132 NAS Technical Perf & Analysis Team

The Quality Assurance and Performance Division has two main functions -- Quality Assurance and Performance Analysis. We strive to ensure a safe and efficient National Airspace System (NAS) through the effective management and operation of the infrastructure, providing quality service delivery and optimal utilization of resources. We provide FAA management with information to make decisions supporting safe, effective, and efficient operation of the NAS.

#### Activity: Improve NAS Performance Reporting Policies

Develop and/or improve NAS performance policy compliance.

#### **Target: Improve NAS Performance Reporting Policies**

Complete Control Center & LF audits (1 OCC/OEC, 3 ARTCC SOC, 2 TRACON SOC) for NAS Policy compliance. Review and validate accuracy of 10% of all the National Airspace Performances Reporting System desk guides and Line Frequency (LF) example sheets.

#### **Activity: National Oversight to the RMLS Program**

Provide e-Technical Performance Record functionality in Remote Monitoring and Logging System tool.

#### **Target: National Oversight to the RMLS Program**

Develop and validate accuracy of 25% the GEMPOP equipment populated profiles for the RMLS Program. Populate & utilize FSEP standard data elements (FEQ/FMO/PMM) on NAS operational selected system records for each capability (TFMS/VSCS/VOR/PAPI/SX/ASR-9/TDWR/NASEB).

#### **Target: Improve NAS Operational System Physical Configuration accountability**

Complete FSEP validations (1% of NAS systems/services/infrastructures visited annually) for NAS Policy compliance.

#### Target: Key Acceptance Test for NRN (M07.04.02)

Key Site acceptance Test for NRN at first ARTCC completed.

#### Initiative: AJW-17 Communications, Flight Services & Weather Engineering Group

Technical refresh for the remote monitoring and logging system (RMLS)

#### Activity: Administer technical support to manage and maintain NAS systems.

Administer technical support to manage and maintain NAS systems. Provide technical assistance for restoration/on-site requests when required.

#### Target: Administer Technical Support to Manage and Maintain NAS Systems

Complete testing of 2 Federal NOTAM System (FNS) releases in support of FNS Modernization. Complete test plan and procedures for Operational testing of the Single NOTAM system.

#### **Initiative: Automation Evolution Strategy (AES)**

FAA is exploring a service-based approach to modernize its NAS automation, with emphasis on a more timely, cost-effective, and agile development approach to the delivery of NAS capabilities. The Automation Evolution Strategy's key vision is the transition to a layered, service-based architecture that take advantage of modern development methodologies and technologies.

#### **Activity: Identify Requirements for Automation Evolution Strategy**

Identify key operational and infrastructure needs for the NAS computing, platform, and mission software layers to enable the proposed Automation Evolution Architecture. The activity will integrate Operating Environments, Information Security and Mission and Common Service perspectives.

#### **Target: Develop Initial Set of Mission and Common Services**

Develop an initial set of mission and common services supporting the lifecycle of NAS operations as the operational requirements of Automation Evolution Strategy reference architecture platform and mission software layers including the Operating Environment Principles Architecture.

#### **Activity: Develop Acquisition, Budget, and Contract Strategy**

Develop a proposed acquisition, budget, and contract strategy to enable the investments needed to realize the automation evolution architecture and business processes, while ensuring competition and accountability.

#### **Target: Automation Evolution Strategy (AES) Investments**

Document the approach to move Automation Evolution Strategy (AES)-related investments through the acquisition process, leveraging the flexibilities of the AMS. Document the budget model to fund the enterprise and capability-(or "app") specific elements needed to realize the AES. Document the strategy to procure contractors through competition to support the migration to AES.

#### **Initiative: AJW-12 NAS Modernization Group**

Policy

#### **Activity: Disaster Preparedness - Develop National Airspace Resiliency Model**

Develop and update resiliency model to address hardening of the maintenance and operation of the NAS.

#### **Target: Develop National Airspace System Resiliency Model**

Deploy Version 2 (V2) of Contingency Requirements and Resource Tool (CRRT).

#### **Target: Resiliency Assessment and Analysis Model enhancement**

Add additional Key systems to the Resiliency Assessment and Analysis Model

#### **Target: Resiliency Assessment and Analysis Model Continuing Operations**

Add Continuity of Operations capabilities to the Resiliency Assessment and Analysis Model

### Activity: Expand the EC pilot program to the remaining facilities within the Boston District.

Develop concepts and use case scenarios for RCM data use in Mx Optimization

### Target: Expand the EC pilot program to the remaining facilities within the Boston District.

Expand implementation of EnRoute Communications Service Thread throughout the Boston District. . POC: Eli Velazquez

### Target: Develop concepts and use case scenarios for Reliability Centered Maintenance data use in Mx Optimization

Develop concepts and use case scenarios for Reliability Centered Maintenance data use in Mx Optimization

#### **Activity: Update Non-Federal Policy Order**

Update Non-Federal Policy Order

#### **Target: Policy update**

Prepare draft Order 6700.20 Revision C for submission to the directives office for national review.

#### Initiative: Spectrum Engineering AJW-1500

Manages and coordinates the daily use of the aeronautical radio frequencies in the United States for all FAA, non-Federal, Military, and other Federal agencies. Manages and develops policies for the electromagnetic compatibility portion of the Obstruction Evaluation / Airport Airspace Analysis Program (OE/AAA). Performs electromagnetic analyses to protect NAS systems from DoD operations. Develops frequency engineering models and maintains the Automated Frequency Management System. Provides radio frequency assignment support of NextGen initiatives.

#### Activity: Spectrum Planning and International Team AJW-152

Spectrum Planning and International addresses standardization and policy for radio coverage analysis and radio frequencies to provide reliable, interference free service that safely supports aviation.

#### Target: Sub-Orbital and Unmanned Aircraft Position Proposals to WRC-23

Submit draft proposals for US Positions on WRC-23 Agenda Items 1.6 (Introduction of Sub-Orbital

Vehicles), WRC-23 Agenda Item 1.7 (VHF ATC communications via satellite), and WRC-23 Agenda Item 1.8 (Unmanned Aircraft) to the Radio Conference Subcommittee of the IRAC.

#### **Activity: Spectrum Testing and Engineering Analysis AJW-153**

Spectrum Testing & Engineering Analysis provides for and protects the radio frequency spectrum that supports civil aviation communications, navigation, and surveillance services by conducting tests & studies on avionic equipment, developing radio frequency equipment & software, and researching

and determining the causes of Radio Frequency Interference (RFI), and conducting RFI training classes

#### Target: Crosswalk of interference frequencies and hardware assets

Create a crosswalk of reported interference frequencies against the current hardware assets throughout the three service areas based on interference reports from the previous year.

#### **Target: Acquisition Plan for interference resolution**

Build a three year acquisition plan for equipment to track and resolve 90% of all reported interference incidents.

#### **Target: Threat Assessment of Aviation Frequency Bands**

Work with partners in APL and AGC to build a comprehensive band-by-band threat assessment of all aviation frequency bands.

#### **Activity: Spectrum Engineering Services AJW-156**

Evaluation and training for frequency engineering tools and methods.

#### **Target: Evaluation Model for HD FM bandwidths**

Work with Business Integra to get a universally accepted AAM model that can batch run a new FM station evaluation that takes into account HD FM bandwidths.

#### **Target: Air to Ground Communication Frequency eLMS course**

Establish a spectrum curriculum training course "Air-to-Ground Communications Frequency Engineering and Assignments" in eLMS.

#### Target: Domestic and International Spectrum Planning eLMS course

Establish a spectrum curriculum training course "Domestic and International Spectrum Planning" in eLMS.

#### **Initiative: ARTCC Modernization - F06.01-00**

Multi-year facility modernization and sustainment program that addresses physical plant requirements for the FAA's 21 ARTCCs as well as the Combined Control Facilities (CCF) at San Juan and Guam. These facilities were originally constructed approximately 50 years ago and have expanded in phases since then. Much of the plant equipment within these buildings has exceeded its life expectancy and must be replaced. This program replaces obsolete equipment and provides an efficient, reliable, and safe work environment for En Route air traffic control operations.

#### **Activity: ARTCC Modernization**

Multi-year facility modernization and sustainment program that addresses physical plant requirements for the FAA's 21 ARTCCs as well as the Combined Control Facilities (CCF) at San Juan and Guam. These facilities were originally constructed approximately 50 years ago and have expanded in phases since then. Much of the plant equipment within these buildings has exceeded its life expectancy and must be replaced. This program replaces obsolete equipment and provides an efficient, reliable, and safe work environment for En Route air traffic control operations.

#### **Target: ARTCC Modernization**

Complete Twenty-five (25) Major Modernization and Mission Critical Local Sustainment Projects.

#### **Target: Fire Alarm Replacement Project Design**

Complete Four (4) Fire Alarm Replacement Project Construction Task Order Awards.

#### **Target: Environmental Wing Design Project**

Complete One (1) Environmental Wing Project Design Project.

#### Initiative: ATCT / TRACON Modernization

ATCT/TRACON facilities will be modernized to address operational and safety issues, including improving the visibility of the entire airport surface from the cab, improving accessibility, removing hazardous materials and upgrading structures to meet current seismic standards. Facility improvements must be completed with minimal impact on existing operations.

#### **Activity: ATCT / TRACON Modernization**

ATCT/TRACON facilities will be modernized to address operational and safety issues, including improving the visibility of the entire airport surface from the cab, improving accessibility, removing hazardous materials and upgrading structures to meet current seismic standards. Facility improvements must be completed with minimal impact on existing operations.

Target: ATCT / TRACON Sustainment F01.01-00

Complete 25 improvement projects.

Target: ATCT / TRACON Replacement F01.02-00

Award two (2) Design Task Orders.

#### Initiative: Environmental Cleanup (HAZMAT) F13.02-00

Liability Mitigation: Reduce the FAA outstanding environmental remediation liability.

#### **Activity: Environmental Cleanup**

Perform environmental remediation activities at active and historic FAA and neighboring properties where environmental impacts occurred from FAA operations.

#### **Target: Environmental Cleanup**

Conduct environmental remediation actions that result in a reductions of 25 identified Areas of Concern.

# Initiative: NAS Facilities OSHA & Environmental Standards & Environmental and Occupational Safety and Health F13.03-00

Design and implement engineered solutions to mitigate identified employee safety, employee health, and environmental impact risks.

# Activity: NAS Facilities OSHA & Environmental Standards Compliance Environmental and Occupational Safety & Health (EOSH)

Design and implement engineered solutions to mitigate identified employee safety, employee health, and environmental impact risks.

#### **Target: Mitigate Fall Hazard Conditions**

Mitigate fall hazard conditions at 25 facilities.

#### Target: Electrical Safety

Mitigate electrical safety hazard at two (2) facilities by replacing pole mounted transformers with pad mounted transformers protected by enclosure.

#### **Target: Abate Asbestos**

Abate asbestos containing materials at six (6) facilities.

#### **Target: Fire Systems Electrical Generators**

Mitigate Fire Life Safety hazard by replacing outdated Emergency Generators for the stairwell pressurization system with UPS at six (6) ATCT's.

#### Initiative: Power Systems Sustainment Support 2 - F11.01-02

The Electrical Power Systems Sustainment Support (PS3) (Power) program pursues the purchase and installation of components for backup electric power systems and power regulation and protection equipment. Backup electrical power systems are necessary to allow continued operation of air traffic control facilities when disruptions occur in commercial power sources. Reliable backup power systems are installed so air traffic control electronics can maintain required availability and capability and prevent disruptions. The Power program replaces, refurbishes, and renews components of existing power systems and cable infrastructure when necessary to maintain and improve the overall electrical power quality, reliability, and availability. The Power program is critical to both maintaining and increasing NAS capacity by improving the quality, reliability, and availability of electrical power provided to NAS electrical communication, navigation, and surveillance equipment.

#### Activity: NAS Power Systems Repair and Replace (F11.01-02)

The Power program will replace, refurbish, and renew components of existing power systems and cable infrastructure when necessary to maintain and improve the overall electrical power quality, reliability, and availability. The Power program is critical to both maintaining and increasing NAS capacity by improving the quality, reliability, and availability of electrical power provided to NAS electrical communication, navigation, and surveillance equipment.

#### **Target: Overall Power Systems Repair and Replace Projects**

Sustain existing NAS power systems by completing 50 projects.

#### **Target: Battery Systems Replacement**

Sustain existing NAS power systems by completing 155 battery replacement projects

#### **Initiative: Fuel Storage Tanks - F13.01-00**

The FAA Fuel Storage Tank (FST) Program replaces active bulk liquid and pressure vessel storage systems that support FAA operations across the NAS. The FST program's inventory includes over 3,000 TANK systems primarily supporting engine generator operations. Replacements are managed in accordance with a published lifecycle guideline.

#### **Activity: Fuel Storage Tanks**

Conduct Replacement, Modernization, and Upgrades of the NAS Fuel Storage Tank Portfolio. Enhance operational readiness, attain regulatory compliance, and conform to life-cycle management goals for fuel storage tank (FST) systems at national airspace system (NAS) facilities.

#### **Target: Fuel Storage Tanks**

Replace, modernize, or upgrade 50 NAS storage tank systems selected in accordance with FST program and ATC Facilities' prioritization processes.

### Initiative: FAA Buildings and Equipment Sustainment Support - Unstaffed Infrastructure Sustainment - F12.00-00

The Unstaffed Infrastructure Sustainment (UIS) program supports NAS structures and equipment to ensure reliable delivery of air traffic control services and capabilities from the 36,293 unstaffed facilities within the NAS.

### Activity: FAA Buildings and Equipment Sustainment Support - Unstaffed Infrastructure Sustainment

The Unstaffed Infrastructure Sustainment (UIS) program supports NAS structures and equipment to ensure reliable delivery of air traffic control services and capabilities from the 36,293 unstaffed facilities within the NAS.

### Target: FAA Buildings and Equipment Sustainment Support - Unstaffed Infrastructure Sustainment

Complete a combined total of 60 Ops and F&E funded unstaffed infrastructure sustainment projects

#### Initiative: Facility Security Risk Management (FSRM) - Two - F24.01-02

The Facility Security Risk Management (FSRM) program provides risk mitigation at all FAA staffed facilities, such as centers, towers, and terminal radar approach control (TRACON) facilities. The program provides an integrated security system that includes access control, surveillance, x-ray machines, metal detection, and intrusion detection. Upgrades include those for guardhouses, visitor parking, fencing, perimeter hardening, window blast protection, and lighting.

#### **Activity: Complete Technical Refresh Upgrades**

Complete technical refresh modernizations at security level 1 and 2 facilities, per FAA Order 1600.69

#### **Target: Complete Technical Refresh Upgrades**

Complete technical refresh modernization at ten (10) sites.

#### Initiative: Mobile Asset Sustainment Program (MASP) - F31.01-01

The Mobile Asset Sustainment Program (MASP) provides continuity of operations during facility outages and provides mobile asset support during facility modernization efforts. Mobile Assets provides for the continuity of restoral of air traffic control when an air traffic control tower (ATCT) or other NAS system is out of service due to a disaster, extensive repair, modernization, or upgrade.

#### **Activity: Mobile Asset Sustainment Program (MASP)**

Acquire Mobile Asset Facilities.

#### **Target: Design and build 2 Mobile Asset Staging Areas**

Design and Fabricate two (2) Medium (2 position) Mobile ATCTS (MMATCTs) Facility.

#### Target: Design and build Medium Mobile Air Traffic Control Tower

Procure and Fabricate one (1) Large (4 position) Mobile ATCTS (LMATCTs) Facility.

### Initiative: Long-Range Radar Improvement - Infrastructure Upgrades / Sustainment - S04.02 -03

The Long-Range Radar (LRR) Infrastructure Upgrades/Sustainment program modernizes and upgrades the radar facilities that provide aircraft position information to FAA's en route control centers and other users (e.g., Department of Defense and Homeland Security). As facilities reach the end of their designed service life they require renovation and upgrades to maintain required level of service. The scope of the LRR Infrastructure Improvements Program includes renovation and upgrades of HVAC system, electrical system, building, tower structure, and facility ground and access.

#### **Activity: Long-Range Radars**

Upgrade and sustain long-range radars.

#### **Target: Upgrade and sustain long-range radars**

Complete 13 total sustainment projects.

#### Initiative: The Real Property Disposition Program - F26.01-01

Plan and implement real property infrastructure dispositions and site restorations at legacy sites that were operational before April 1, 1996 and are now decommissioned and have no supporting program office. This includes infrastructure dispositions and real property site restorations, hazardous materials abatement and/or remediation, and disposition, termination phase one Environmental Due Diligence Audits, and cultural historic preservation and natural resource protection locations.

#### **Activity: The Real Property Disposition Program**

Complete real property disposal for all service areas.

#### **Target: The Real Property Disposition Program**

Complete 30 real property disposition projects.

#### **Initiative: Proactive Security and Safety**

Ensure the security and safety of U.S. citizens, both domestically and abroad, and mitigate negative impacts on the NAS by providing world-class threat monitoring and response.

#### **Activity: Strategic Operations Security**

Manage significant incident response, planning and exercises; develop operational security procedures; protect sensitive flight data; lead interagency and international collaboration; and advance the security and emergency response automation tool suite.

#### **Target: Significant Incident Management Operations**

Develop and implement standardized Joint Crisis Action Team (J-CAT) procedures, leveraging lessons learned during the 2021 hurricane season, which enable smooth, consistent transitions from steady-state operations for which Joint Air Traffic Operations Command (JATOC) is responsible to escalated, response operations, including J-CAT activations, for which System Operations Security is the lead.

## **Target: Operations Security Plans and Procedures**

Strengthen and sustain integrated Air Traffic Management (ATM) security policy, procedures, planning and programs in cooperation with other stakeholders within the FAA, with interagency security partners and with other international and private entities. Advance the Operational Security (OPSEC) of sensitive missions through the collaborative development of Memorandum of Understanding and Memorandum of Agreements (MOU/MOAs); ATM security related procedures; and the application of requirements for Sensitive Flight Data (SFD), sensitive or controlled unclassified information (SUI/CUI) security, and privacy protection on NAS data release programs. These last activities specifically include the efficient handling of requests presented to the NAS Data Release Board (NDRB) and the Limiting Aircraft Data Displayed (LADD) program.

#### **Target: Operations Security Strategic Initiatives**

Deliver procedures and/or automation related solutions to transition from the current, FAA and Department of Defense (DOD) deconfliction process for Global Positioning System Electronic Attack (GPS EA) Test, Training and Exercise (TT&E) activities in the NAS. Specifically, implement improvements to promote increased parallel coordination among System Operations Security, Spectrum Engineering, and Air Traffic Services and improved 4D deconfliction between TT&E events and Air Traffic Control (ATC) field facility inputs.

### **Activity: Tactical Operations Security**

Manage the Domestic Events Network, serve as the FAA's tactical nexus linking Air Traffic Control (ATC) facilities, interagency operational coordination platform for aviation security incidents, design and establish all security and major disaster Temporary Flight Restrictions, manage airspace access waivers and authorizations, and supports many other Air Traffic Management related security and emergency operations measures.

#### **Target: Joint Air Traffic Operations Command/Domestic Event Network**

Continue tactical support to JATOC and ATC facilities for aviation security incidents and provide tactical oversight and monitoring of appropriate NSSE/SEAR security activities, space launch and recovery events, C-UAS developments and support major disaster Temporary Flight Restriction responses.

Develop, implement and train internal coordination and space operations procedures with AJR-11. Collaborate with AJR-221 to update Air Traffic Security Coordinator Standard Operating Procedures and training program by end of FY22.

Conduct a minimum of 4 (four) in-person or virtual training/outreach sessions in FY22.

### **Target: System Operations Support Center**

Continue to collaborate with first responders during life threatening situations and emergencies which require UAS integration into the NAS. Increase user awareness and education of the SGI process for first responders and other system users during crisis response events, by conducting 2 special government interest (SGI) related webinars and 2 in-person invitational conferences in FY22.

Develop commercial space temporary flight restrictions (TFRs) and associated SGI waiver procedures with interagency partners.

## **Target: National Capital Region Coordination Center (NCRCC)**

Work with the Transportation Security Administration and Interagency partners to review, update, and implement new guidelines for operating small unmanned aircraft systems in the Flight Restricted Zone. Integrate the updated guidelines into the Airspace Access Program website allowing a streamlined process by the end of FY22.

#### Target: NORAD/NORTHCOM Command Center (N2C2)

FAA NORAD will continue to support the NORAD/US NORTHCOM Command Center, Cheyenne Mountain Operations Center, and NORAD/US NORTHCOM command elements with operational Air Traffic Control and National Airspace System expertise. FAA NORAD will promote the development of FAA NORAD Air Traffic Security Coordinators operational skills and proficiency through quarterly assignments and Quality Assurance methods. FAA NORAD will conduct 4 NORAD/US NORTHCOM Command Center inter-domain collaborative sessions to promote more efficient communication protocols during global and domestic security events by the end of FY22.

# Target: Continental U.S. North America Aerospace Defense Command Region (NORAD)

Develop centralized CONR Knowledge Sharing Network (KSN) to capture Lessons Learned, Tactics, Techniques and Procedures (TTPs) and Standard Operating Procedures to ensure institutional memory is achieved. Systematically integrate with 601 Air Operations Center and the Air Component for U.S. Space Force, Air Force Northern (AFNORTH), to develop process and procedures for crewed/non-crewed space launches and other space operations within the NAS.

#### **Activity: Air Defense Liaison Officer**

Develop and coordinate the air traffic role in dynamic programs for national defense joint operational planning though training, emergency war plans, Defense Support to Civil Authorities as well as counter-drug/ counter-terrorist contingencies and other sensitive Department of Defense missions.

## **Target: Air Defense Liaison Officer**

Develop Air Defense Liaison Officer (ADLO) procedures in conjunction with AJR-221, 24 and 26 to standardize interagency support with FAA/ATO objectives during crisis and National Security events.

### **Initiative: Comprehensive Contingency Planning**

Enhance the safety, security, and efficiency of airspace systems through contingency planning and exercises.

## Activity: Improve ATO Operational Contingency Plans and Response to Significant Events

Continue OCP rebuild efforts for all NAS facilities to include elaborated deployment to TRACONs & ARTCCs.

#### **Target: Operational Contingency Plan Reviews**

Complete Operational Contingency Plan (OCP) Reviews and Reports for 20 sites to identify gaps within the OCPs.

## **Target: Operational Contingency Plan Rebuilds**

Conduct Operational Contingency Plan (OCP) Rebuilds and submit final draft OCP revisions for facility negotiation at 3 (three) En Route and 2 (two) Terminal Facilities

### **Target: Operational Contingency Plan Exercises**

Develop and conduct Operational Contingency Exercises at 10 (ten) Terminal facilities to ensure viability, familiarity and document any gaps that may exist within the Operational Contingency Plan (OCP).

### **Target: Infrastructure Facility Capability Project**

Apply the Corporate Work Plan tool to develop and support the infrastructure / facility capability project data to address Contingency Service and Infrastructure Requirements (CSIR). Collaborate with Technical Operations National Contingency Planning Support Team (TONC) to address facility infrastructure needs. Report monthly on progress.

### Activity: FAA Order JO 1900.47 Publication and Awareness Campaign

Publish and communicate the contingency policy revision (1900.47G) to improve operational readiness across the NAS by defining more roles and responsibilities; and requirements for contingency planning work and deliverables. Awareness communications will target a wide audience through various media outlets to ensure the ATO is prepared in the event of a contingency event.

### **Target: 1900.47G Publication Communications**

Develop 1900.47G publication communications plan to incorporate promotion and awareness campaign and prepare the ATO for the upcoming operational contingency related policy updates.

## **Target: 1900.47G Awareness Video**

Develop and release JO 1900.47G awareness video(s) and promotional material to reengage the ATO on all things operational contingency and to ensure their awareness and understanding regarding the new policy requirements targeting key stakeholders across the ATO.

## **Target: 1900.47G Changes Information Sessions**

Conduct at least 2 (two) web-based information sessions introducing the changes within the JO 1900.47G.

## Target: Publish 1900.47G

Publish the JO 1900.47G to provide the ATO with clearer and more robust requirements regarding operational contingency planning.

## **Activity: ATO Operational Contingency Strategy Plan**

Collaboratively develop an ATO Operational Contingency Strategy outlining the evolving operational readiness goals of the ATO while defining a high-level path forward.

#### **Target: Strategy Document**

Develop the structure of the ATO Operational Contingency Strategic Plan and define the stakeholders to provide the vision regarding the future of operational contingency and provide the Operational Readiness Directorate with a path forward regarding, policy, guidance, tools, training and the role of the directorate.

## **Target: Stakeholder Brainstorming**

Conduct at least 2 (two) brainstorming sessions with stakeholders to define the ATO's vision regarding the future of operational contingency and gain buy-in across the ATO.

### **Target: ATO Operational Contingency Strategy Plan**

Initiate coordination of draft ATO Operational Contingency Strategy Plan review by stakeholder leadership across the ATO to define the ATO's vision regarding the future of operational contingency in order to gain feedback and awareness from leadership.

### Initiative: Integration of Transiting Operations into the NAS

Integrate new entrants transiting to and from Space and Upper Class E into the National Airspace System (NAS) without introducing unacceptable levels of risk, while providing a secure and more efficient system.

## Activity: Enable Safe and Efficient Growth for Space Launch and Reentry Operations that Optimizes Operations for All NAS Users

Promote inclusion of Space Operations by providing input to efforts during establishment, refinement, and modification of standards, procedures, policy, automation development, Safety Risk Management Panel activities, and training related to operations transiting to and from Space.

## **Target: Standards to Integrate Transiting Operations**

Support efforts for refinement and development of standards and procedures to integrate operations transiting to and from Space with minimal impact to the NAS.

### **Target: Safety Risk Management Panels**

Participate in Safety Risk Management Panel (SRMP) activities for operations transiting to and from Space.

#### **Target: Training Required for Air Traffic operational Personnel**

Evaluate need to modify current training and assist in the development of new training as required for Air Traffic operational personnel.

### **Target: Development of Automation Capabilities**

Support development of automation capabilities that lead to process and response enhancement for application to operations transiting to and from Space.

## Activity: Enable Routine Operations in Upper Class E/Higher Airspace Operations with Safety and Efficiency for All NAS Users

Promote inclusion of Upper Class E Operations by providing input to efforts during establishment, refinement, and modification of standards, procedures, policy, automation development, Safety Risk Management Panel activities, and training related to operations transiting to and from Upper Class E.

## Target: Standards to Integrate Transiting Operations to and from Upper Class E

Support efforts for refinement and development of standards and procedures to integrate operations transiting to and from Upper Class E with minimal impact to the NAS.

#### **Target: Inform Concept Development**

Engage in information and data gathering to inform concept development related to Upper Class E operations.

#### Initiative: Employee Housing and Life Safety Shelter Systems F20.01-01

Repair, Replace, Install employee and life safety shelter systems.

#### **Activity: FAA Employee Housing and Life Safety Shelter Systems**

Repair, replace, install housing and life safety shelters.

## **Target: Life Safety Shelters**

Install five emergency shelters.

## Improve Performance of the NAS

Develop and implement a comprehensive roadmap to support the evolution of the National Aerospace System as the foremost air data-driven navigation provider in the world.

#### Initiative: Improve Reporting on Operational Performance of the NAS

The overall goal of this initiative is to help move the FAA's operational performance data reporting towards better post-operational performance analysis, near-real-time data reporting, and decision-supported predictive analytics.

## **Activity: Develop a Data Governance Structure.**

Create a governance and policy structure to ensure usage of a single enterprise-wide operational database.

#### Target: Standardize and document data processes.

Standardize and document processes to ensure data validation and correct processing.

#### Target: Standardize and document metrics processes.

Standardize and document processes to ensure metric validation and correct processing.

## Activity: Develop Near Real-Time Data Reporting and Single Operational Metric Database.

Develop and implement the single near real-time data source and metrics operational database.

## Target: Implement near real time data repository for analyst use.

Implement near real time data repository for analyst use.

#### **Activity: Operational Performance Reporting Roadmap.**

Develop an Operational Performance Reporting Roadmap to better align various reporting mechanisms.

## Target: Develop a roadmap.

Develop a roadmap to success that includes documenting and validating current efforts, identifying gaps and critical milestones in the evolution of Operational Performance Reporting.

#### Target: Implement an operational metric database.

Implement an enterprise-wide authoritative operational metric database.

#### **Target: Develop and implement policy.**

Develop and implement policy that facilitates use of the enterprise-wide authoritative operational metric database.

#### Initiative: Air Traffic Services – Operationalize NextGen

Collaborate across service units to resolve field concerns and provide subject matter expertise as necessary.

#### **Activity: Initial Trajectory Based Operations (iTBO) Change Management**

Develop and execute the Change Strategy plan for TBO implementation by operating area. TBO is Time Based Management (TBM) complemented by Performance Based Navigation (PBN).

#### **Target: Plan and Execute Change Management Initiatives**

Sustain and enhance training of Change Management initiatives. This effort includes facility and associated district outreach for Northeast Corridor (NEC), Southwest (SW), and Northwest Mountain (NWM) Operating Areas.

# Target: Prepare Facilities and Workforce for Using Initial Trajectory Based Operations (iTBO)

Continue the training and support of the Field Implementation Teams in three operating areas: NEC, NWM and SW. Work with facilities on their TBO Evolution plans.

## Target: Coordinate Initial Trajectory Based Operations (iTBO) Progress and Plans with Internal Stakeholders

Support implementation and use of TBO capabilities by holding a TBO Summit, an annual FAA workforce collaboration event.

#### **Activity: Initial Trajectory Based Operations (iTBO)**

Plan and execute deployment of iTBO capabilities as needed to improve efficiency and predictability of operations in the National Airspace System (NAS). Coordinate with internal and external stakeholders as needed. Support data-driven adjustments in iTBO roadmaps in response to changes in availability of FAA resources and operators' demand.

## Target: Deployment of Initial Trajectory Based Operations (iTBO) by Operating Area

North East Corridor (NEC) Operating Area: Improve departure management for flights destined to LGA. Multiple NE airports are targeted for enhanced IDAC departure participation and compliance.

NEC Operating Area: Improve departure management for flights destined to PHL. Multiple NE airports are targeted for enhanced IDAC departure participation and compliance.

Southwest Operating Area: Improve ZLA Metering System for arrivals to LAX. Northwest Mountain Operating Area: Implement the last phase of improving Extended Metering System for arrivals to DEN.

## Target: Coordinate Initial Trajectory Based Operations (iTBO) Progress and Plans with External Stakeholders

Support use of existing TBO capabilities and expansion of TBO capabilities throughout the National Airspace System (NAS) by participating in at least one external customer forum. This may be accomplished via newly implemented TBO Industry Day initiatives, NAC and NAC SC briefs, NEC/PBN NIWG Briefs, CDM and/or NCF exchanges with external stakeholders.

# Target: Support Initial Trajectory Based Operations (iTBO) Planning and Execution Through Data-driven Decision-making

Support TBO planning and execution through customized analyses of performance as needed to support deployments at Northeast Corridor, Northwest Mountain and Southwest operating areas. Coordinate development of TBO dashboard with AJR, AJM and ANG.

#### **Activity: Expand Availability and Use of Time Based Flow Management (TBFM)**

Enhance the FAA's efficiency and improve demand and capacity balancing through the support of the expanded use of TBFM, and its capabilities, to additional locations in the NEC.

### **Target: Deployment of IDAC**

Expand availability and use of Integrated Departure Arrival Capability (IDAC) at two key sites.

## **Activity: Nation-wide Deployment of Consolidated Wake Turbulence (CWT)**

Implement Wake Recategorization at planned sites by the end of Fiscal Year (FY) 2022. This will be accomplished in collaboration with AJV-P, AJM-2 and ANG-C

#### Target: Expand Use of Consolidated Wake Turbulence (CWT)

Implement Consolidated Wake Turbulence at two (2) facilities.

#### Target: Expand Use of Consolidated Wake Turbulence (CWT)

Implement Consolidated Wake Turbulence at three (3) additional sites.

#### Initiative: Consolidation and Realignment of FAA Services and Facilities

Examine existing services to implement a rebalancing of our operations. Reduce the infrastructure footprint by consolidating and modernizing facilities.

#### Activity: Establish Consolidation Schedule and Relocate Fixed Airspace Volume

Collaborating with AJW-2 and AJM to relocate fixed Airspace volume from one ARTCC to the adjacent ARTCC and to establish a Schedule timeline for Consolidating two TRACONS.

# Target: Relocate Peoria ATCT Fixed Airspace Volume from ZAU to ZKC (Section 804)

Collaborate with AJW-2 and AJM, relocate the Peoria ATCT Fixed Airspace Volume from ZAU to ZKC in order to facilitate at a later the date the consolidation of Peoria ATCT to St. Louis TRACON.

## Target: Establish Consolidation Schedule to Relocate Peoria TRACON and Springfield TRACON into St. Louis TRACON (Section 804)

Collaborate with AJW-2 and AJM to establish a Schedule timeline for Consolidating Peoria TRACON (PIA) and Springfield TRACON (SPI) into St. Louis TRACON (T75).

# Target: Create Adaptation to Relocate New York TRACON Newark Area Fixed Airspace Volume to Philadelphia TRACON

Collaborate with AJM to create an adaptation for the relocation of the Newark Area (EWR) fixed airspace volume from New York TRACON (N90) to Philadelphia TRACON (PHL).

## **Target: Develop Training Schedule for Philadelphia Newark Area**

Collaborate with AJI to develop training schedule for personnel relocating to new area at Philadelphia TRACON (PHL).

## Initiative: Air Traffic Services Business Analytics – Use information to Improve System Performance

AJT Business Analytics supports Air Traffic Services leadership through the development and implementation of Business Utilization and Resource Standardization Tools (BURST), Operational Planning and Scheduling Tool (OPAS) and Air Traffic Operations Management System (ATOMS), to standardize processes and conduct data analysis. Implementation of standardized processes and tools will provide Air Traffic Services the required data and analytical support to make informed data driven decisions.

#### Activity: Implementation of Facility Work Plan (FWP) in all FAA operated facilities

Improve field site resource planning and utilization via web tool for all facilities to plan resource usage and allow for pay period monitoring of the usage. Tracking of OJT, Overtime, Time on Position, Leave, Other Training and Other Duties will be planned and tracked throughout the fiscal year.

## Target: Improve field site resource planning

Review, assess and incorporate changes such as refining existing tabs and calculations in the Facility Work Plan (FWP) and reviewing FY22 plans through automated dashboards.

### Target: Improve field site resource planning

Provide training to field and district personnel on new requirements or expectations for FY22. Finalize changes and training to ensure clear messaging of the requirement regarding the population of data in the revised Facility Work Plan (FWP).

## Target: Improve field site resource planning

Complete quarterly review of Facility Work Plan (FWP) data through dashboards and publishing the analytical reports.

### Target: Integrate field site resource planning

Complete a plan to incorporate a Business Analysis Tool Suite (BATS) module into the Facility Work Plan (FWP) as an enhancement.

### **Activity: BURST Field Representative Training Program**

Improve field site resource planning, utilization via regular training meetings and workshops, which will improve understanding of the processes and products that will improve Air Traffic Services business acumen.

## **Target: Conduct BURST field training**

Conduct training meetings and workshops to improve field understanding of Business Acumen products and systems to improve Air Traffic Services efficiency and the required products that field facilities provide to AJT Headquarters.

## **Activity: Implement ATOMS**

Provide a platform/tool capable of improving controller scheduling and work assignment tracking, and capable of interfacing with other ATO tools. Replaces CRU-Art and integrates with Web Scheduler (WMT).

## **Target: Implement ATOMS**

Complete development of Training Course(s).

### **Target: Implement ATOMS**

Initiate training and implementation for approximately 133 ATC facilities (ATOMS Release 1).

### **Target: Implement ATOMS**

Initiate training and implementation for 115 ATC facilities and 17 FSS facilities (ATOMS Release 2).

### Activity: Improved process to request field resources in support of programmatic needs

Leverage technology to create an improved process to request field resources in support of high priority programmatic needs.

## **Target: PMT Testing and Training**

Complete Release 2 of PMT version 2 with Incremental User Testing (IUT).

#### **Target: PMT Deployment**

Prepare nationwide plan for deployment of PMT.

#### **Activity: Develop the Abacus Tool**

Support development of the Abacus tool for Automated Traffic Count at Terminal and EnRoute facilities.

#### **Target: Test Playback Tool in Abacus**

Finalize testing of Functional Block 4 (Playback Tool) in Abacus.

#### **Target: Test Count Tool in Abacus**

Initiate testing of Functional Block 6 (Count) in Abacus.

### Initiative: Improve Reporting on Operational Performance of the NAS

The overall goal of this initiative is to help move the FAA's operational performance data reporting towards better post-operational performance analysis, near-real-time data reporting, and decision-supported predictive analytics.

#### **Initiative: SWIIM Segment 2C**

Develop Final Migration Plan for SWIM Cloud Distribution Services (SCDS).

#### **Activity: SWIM Segment 2C**

Develop Final Migration Plan for SWIM Cloud Distribution Services (SCDS).

# Target: System Wide Information Management (SWIM) 2C / Industry-FAA Team (SWIFT) Portal

System Wide Information Management (SWIM) Industry-FAA Team (SWIFT) Portal V3 Initial Operational Capability (IOC).

#### Target: System Wide Information Management (SWIM) 2C/ Tech Refresh

Complete Tech Refresh of hardware in First and Second Tech Refresh Orders.

#### **Initiative: Spectrum**

As part of a cross-agency team, the FAA will assess the feasibility of making bandwidth available for reallocation for non-federal use through the Spectrum Efficient National Surveillance Radar (SENSR) program.

## Activity: Spectrum Efficient National Surveillance Radar (SENSR) program, S16.01-01

Assess the feasibility to improve utilization of radio spectrum and make it available for shared or non-federal use through means such as consolidating surveillance radars through initiatives such as the Spectrum Efficient National Surveillance Radar (SENSR) whose goal is to provide up to 50 MHz of spectrum in the 1300-1350 MHz band for Federal Communications Commission (FCC) auction in support of the 2015 Spectrum Act.

Target: Provide Spectrum Efficient National Surveillance Radar (SENSR) Program Manager comments on the NTIA identification of spectrum for auction.

Provide Spectrum Efficient National Surveillance Radar (SENSR) Program Manager comments on the NTIA identification of spectrum for auction.

Target: Complete the final Spectrum Efficient National Surveillance Radar (SENSR) feasibility report 2.0.

Complete the final Spectrum Efficient National Surveillance Radar (SENSR) feasibility report 2.0.

Target: Develop and complete the draft Spectrum Efficient National Surveillance Radar (SENSR) program transition plan.

Develop and complete the draft Spectrum Efficient National Surveillance Radar (SENSR) program transition plan.

## Initiative: Terminal Doppler Weather Radar (TDWR)

The Terminal Doppler Weather Radar (TDWR) is used by ATC to increase the safety of the NAS. TDWRs provide vital information and warnings regarding hazardous windshear conditions, precipitation, gust fronts, and microbursts to air traffic controllers managing arriving and departing flights in the terminal area. There are 45 commissioned TDWR systems protecting 46 high-capacity airports throughout the United States and Puerto Rico that are prone to wind shear events. Two additional TDWR systems at the FAA's Mike Monroney Aeronautical Center in Oklahoma City provide engineering support and training. There have been no wind shear accidents at any TDWR-protected airport since its TDWR was commissioned. TDWR weather data is transmitted to FAA automation systems and to 34 National Weather Service forecast offices. The current system has been in service since 1994 and requires updating due to equipment obsolescence issues. Reduce Aviation and Commercial Space Transportation-Related Fatalities and Serious Injuries in Commercial and General Aviation.

## Activity: Terminal Doppler Weather Radar (TDWR) Sustainment 2

Terminal Doppler Weather Radar (TDWR) Sustainment 2

## Target: Terminal Doppler Weather Radar (TDWR) S2

Complete installation of Transmitter Microwave Assembly Tech Refresh Solution at 3 sites.

#### **Activity: Terminal Doppler Weather Radar (TDWR) S3**

Terminal Doppler Weather Radar (TDWR) S3

## Target: Terminal Doppler Weather Radar (TDWR) \$3

Complete Initial Integrated Logistics Support Plan (ILSP) signed by Program Office.

#### **Initiative: ASTI Sustain**

Develop and implement a comprehensive roadmap to support the evolution of the National Aerospace System as the foremost air data-driven navigation provider in the world.

#### **Activity: ASTI Sustain**

Develop and implement a comprehensive roadmap to support the evolution of the National Aerospace System as the foremost air data-driven navigation provider in the world.

#### Target: Alaskan Satellite Telecommunications Infrastructure (ASTI) Sustainment

Installation of new Antenna Controller in the Alaskan Satellite Telecommunications Infrastructure (ASTI) Test and Training Facility.

#### **Initiative: Eastern Service Area (AJW-E)**

Executes the mission of Technical Operations Services: ensures effective NAS operation; establishes service unit goals, strategies budgets and priorities; allocates and manages resources; meets performance targets, and supplies services, as requested, to meet the requirements of the service units. Develops technical and maintenance requirements, standards, policies, procedures, plans, fiscal management and programs for the maintenance engineering associated with modernization, strategic planning, implementation, installation and operations of the NAS. Completes scheduled activities to ensure optimal system reliability.

## Activity: Maintain facilities in the Eastern Service Area to ensure NAS reliability

Complete scheduled activities to ensure optimal system reliability.

#### Target: Maintain facilities in the Eastern Service Area to ensure NAS reliability

Track and maintain core airport NAS reliability of at least 99.7%.

#### **Initiative: Central Service Area (AJW-C)**

Execute the mission of Technical Operations Services: Ensure effective NAS operation; establish Service Unit goals, strategize budgets and priorities; allocate and manage resources; meet performance targets, and supply services, as requested, to meet the requirements of the Service Units. Develop technical and maintenance requirements, standards, policies, procedures, plans, fiscal management and programs for the maintenance engineering associated with modernization, strategic planning, implementation, installation and operation of the NAS. Complete scheduled activities to ensure optimal system availability and reliability.

## **Activity: Maintain facilities in the Central Service Area**

Complete scheduled activities of preventive maintenance, equipment modifications and restoration activities.

### **Target: Maintain facilities in the Central Service Area**

Track and maintain core airport NAS reliability of at least 99.7%.

#### **Initiative: Western Service Area (AJW-W)**

Execute the mission of Technical Operations Services: Ensure effective NAS operation; establish Service Unit goals, strategize budgets and priorities; allocate and manage resources; meet performance targets, and supply services, as requested, to meet the requirements of the Service Units. Develop technical and maintenance requirements, standards, policies, procedures, plans, fiscal management and programs for the maintenance engineering associated with modernization, strategic planning, implementation, installation and operation of the NAS. Complete scheduled activities to ensure optimal system reliability.

#### **Activity: Maintain facilities in the Western Service Area**

Complete scheduled activities to ensure optimal system reliability.

#### **Target: Maintain facilities in the Western Service Area**

Track and maintain core airport NAS reliability of at least 99.7%.

## **Initiative: Surveillance Services (AJM-4)**

Surveillance Services (AJM-4)

## **Activity: Surveillance Services (AJM-4)**

Surveillance Services (AJM-4)

### Target: Submittal of draft Surveillance Services Requirements Document.

Submittal of draft Surveillance Services Requirements Document.

#### **Target: Submittal of Surveillance Architecture Alternatives Document Version 1.**

Submittal of Surveillance Architecture Alternatives Document Version 1.

#### **Target: Complete Surveillance 201 Training Series.**

Complete Surveillance 201 Training Series.

#### Target: FAA terminal weather surveillance solution re-architecture analysis.

FAA terminal weather surveillance solution re-architecture analysis.

#### Initiative: Advanced Technologies and Oceanic Procedures (ATOP)

The ATOP program replaced oceanic air traffic control systems, updated procedures, and modernized the Oakland, New York, and Anchorage Air Route Traffic Control Centers (ARTCCs), which house these oceanic automation systems. A support system was also installed at the William J. Hughes Technical Center (WJHTC). ATOP fully integrates flight data processing, detects conflicts between aircraft, provides data link and surveillance capabilities, and automates the previous manual processes. A technology refresh for the automation system was completed in 2009 for all three operational sites and the WJHTC labs. This technology refresh activity increased system performance, capacity, and usability at that time. The ATOP program continued to deliver safety and efficiency enhancements through FY 2018 for evolutionary improvements to the ATOP system.

## Activity: Advanced Technologies and Oceanic Procedures (ATOP) S2, A10.03-01

The ATOP Sustainment 2 program, formally known as ATOP Tech Refresh 2, procured and replaced system hardware, upgraded the operating system from AIX to Linux, and integrated the new technology with the baseline ATOP applications. ATOP Technology Refresh reduces maintenance and logistics costs and supports incorporation of software changes and new capabilities to support future NextGen, Surveillance and Broadcast Service (SBS), and other NAS improvements.

Target: Advanced Technologies and Oceanic Procedures (ATOP) Sustainment 2 - T28 Operational at last ATOP Site (ZNY).

Advanced Technologies and Oceanic Procedures (ATOP) Sustainment 2 - T28 Operational at last ATOP Site (ZNY).

Target: Advanced Technologies and Oceanic Procedures (ATOP) Sustainment 2 - In-Service Decision (ISD) Approval.

Advanced Technologies and Oceanic Procedures (ATOP) Sustainment 2 - In-Service Decision (ISD) Approval.

## Activity: Advanced Technologies and Oceanic Procedures (ATOP) E1, A10.03-02

The Advanced Technologies and Oceanic Procedures (ATOP) - Enhancement 1 program provides 5 large-scale capabilities to address the operational shortfalls of the current oceanic system. The program evolved the capabilities from the requirements validated by the Air Traffic Organization Mission Support Services International Office.

Target: Advanced Technologies and Oceanic Procedures (ATOP) Enhancement 1 (E1) - Release T29 Available for Operational Use.

Advanced Technologies and Oceanic Procedures (ATOP) Enhancement 1 (E1) - Release T29 Available for Operational Use.

Target: Advanced Technologies and Oceanic Procedures (ATOP) Enhancement 1 (E1) - Release T30 Available for Operational Use.

Advanced Technologies and Oceanic Procedures (ATOP) Enhancement 1 (E1) - Release T30 Available for Operational Use.

Target: Advanced Technologies and Oceanic Procedures (ATOP) Enhancement 1 - Release T31 Software Hand-Off to Test Complete.

Advanced Technologies and Oceanic Procedures (ATOP) Enhancement 1 - Release T31 Software Hand-Off to Test Complete.

Activity: Advanced Technologies and Oceanic Procedures (ATOP) Enhancement 2 - Activity 1

Advanced Technologies and Oceanic Procedures (ATOP) Enhancement 2 - Activity 1

Target: Advanced Technologies and Oceanic Procedures (ATOP) Enhancement 2 - Complete Directorate Approval of Preliminary Program Requirements Document (PPRD).

Advanced Technologies and Oceanic Procedures (ATOP) Enhancement 2 - Complete Directorate Approval of Preliminary Program Requirements Document (PPRD).

### **Initiative: Traffic Flow Management System (TFMS) Sustainment 3**

The Traffic Flow Management System (TFMS) program is requesting a new z-CIP beginning in FY23 to account for future work under Flow Management Data and Services (FMDS). FMDS will be a new investment to replace the current TFMS and its associated acquisition programs under a new contract.

The re-planned TFMS Sustainment 3 program will focus on sustainment to keep the current TFMS functional until it can be replaced by FMDS.

#### Activity: Traffic Flow Management System (TFMS) Sustainment 3, A05.01-15

The TFMS Sustainment 3 Investment Analysis Readiness Decision is planned for FY 2022 Q2.FMDS IARD is tentative for FY 2022 Q1.

# Target: Develop Flow Management Data and Services (FMDS) Enterprise Architecture products and amendments.

Develop Flow Management Data and Services (FMDS) Enterprise Architecture products and amendments.

# Target: Complete the Preliminary Flow Management Data and Services (FMDS) Information System Security Assessment (p-ISSA).

Complete the Preliminary Flow Management Data and Services (FMDS) Information System Security Assessment (p-ISSA).

## Target: Flow Management Data and Services (FMDS) Concept of Operations (CONOPS).

Develop Flow Management Data and Services (FMDS) Concept of Operations (CONOPS).

# Target: Flow Management Data and Services (FMDS) Preliminary Program Requirements Document (pPRD).

Develop Flow Management Data and Services (FMDS) Preliminary Program Requirements Document (pPRD).

## Activity: Traffic Flow Management Infrastructure (TFM-I) Sustainment 3 Interim Execution Plan; A05.01-16

Traffic Flow Management Infrastructure (TFM-I) Sustainment 3 Interim Execution Plan - Activity 1

Target: Execute the Traffic Flow Management System (TFMS) Sustainment 3 (S3) Interim Execution Plan Project Level Agreement (PLA) between TFMS and the Rapid Development & Deployment Product Team (RDDPT).

Execute the Traffic Flow Management System (TFMS) Sustainment 3 (S3) Interim Execution Plan Project Level Agreement (PLA) between TFMS and the Rapid Development & Deployment Product Team (RDDPT).

## **Initiative: Standard Terminal Automation Replacement System**

The Standard Terminal Automation Replacement System (STARS) is a joint Department of Defense and Department of Transportation (FAA) program to modernize terminal air traffic control automation systems. Air traffic controllers use the STARS automation and displays to ensure the safe separation of aircraft (both military and civilian) within the nation's airspace. STARS is expandable to accommodate future air traffic growth and new hardware. Planning for technology refreshment and sustainment enables identification and qualification of affected components before they become inoperable due to obsolescence. For example, the processor currently used in STARS is no longer available from the manufacturer. The consequences of obsolescence have collateral implications in the areas of engineering, training, maintenance and many other disciplines. STARS sustainment is needed to address changes in hardware and to address changes in hardware and to support the STARS upgrades needed for enhanced performance and capacity in support of new capabilities.

Activity: Standard Terminal Automation Replacement System Sustainment 1, A04.01-01 Complete critical activities to PMOs Marquee Programs.

Target: STARS Sustainment 1 (SS1) – Complete Initial Operating Capability (IOC) at Norfolk (ORF).

STARS Sustainment 1 (SS1) – Complete Initial Operating Capability (IOC) at Norfolk (ORF).

Activity: Standard Terminal Automation Replacement System (STARS) Sustainment 2, A04.01-03

Standard Terminal Automation Replacement System (STARS) Sustainment 2, A04.01-03

Target: Standard Terminal Automation Replacement System (STARS) Sustainment 2 - Remote Towers: Last (5th) Site Initial Operating Capability (IOC).

Standard Terminal Automation Replacement System (STARS) Sustainment 2 - Remote Towers: Last (5th) Site Initial Operating Capability (IOC).

Target: Standard Terminal Automation Replacement System (STARS) Sustainment 2 - Operational Test (OT) Conduct Run-for-Record.

Standard Terminal Automation Replacement System (STARS) Sustainment 2 - Operational Test (OT) Conduct Run-for-Record.

Activity: Standard Terminal Automation Replacement System (STARS) Sustainment 3, A04.01-05

Standard Terminal Automation Replacement System (STARS) Sustainment 3, A04.01-05

Target: Complete 60 Standard Terminal Automation Replacement System (STARS) Sustainment 3 (SS3) Site Surveys.

Complete 60 Standard Terminal Automation Replacement System (STARS) Sustainment 3 (SS3) Site Surveys.

Target: Complete 60 Rapid Checklist Submissions for Standard Terminal Automation Replacement System (STARS) Sustainment 3 (SS3).

Complete 60 Rapid Checklist Submissions for Standard Terminal Automation Replacement System (STARS) Sustainment 3 (SS3).

## Target: Complete all Standard Terminal Automation Replacement System (STARS) Sustainment 3 (SS3) Site Surveys.

Complete all Standard Terminal Automation Replacement System (STARS) Sustainment 3 (SS3) Site Surveys.

### **Initiative: Airborne Collision Avoidance System X (ACAS X)**

ACAS X is being developed to meet future collision avoidance requirements. The program will replace the existing Traffic Alert and Collision Avoidance Systems II (TCAS II) that is required in the U.S. airspace for all commercial aircraft with 30 or more seats and on all cargo aircraft greater than 33,000 pounds. ACAS X will reduce the number of nuisance Resolution Advisories (RA) in U.S. airspace and better support future operations.

The ACAS X system will address shortfalls in the legacy TCAS II system. First, the system architecture will be designed so that threat detection and resolution logic changes can be made quickly using an automated process, which will be useful for future adaptations to Next Generation Air Transportation System (NextGen) operations. Second, ACAS X will have enough flexibility to be able to accommodate a variety of sensor types, including new generations of sensors where necessary. Third, ACAS X will reduce the number of "nuisance alerts" while simultaneously providing a reduced probability of near mid-air collision. The ACAS X systems have three variants in active development:

- ACAS Xa: Will use active interrogations and replies in concert with passive reception of ADS-B
  information to perform surveillance; ACAS Xa is the variant of ACAS X most similar to TCAS II in
  its form and function
- ACAS Xo: For use with NextGen operations where other variants of ACAS X would generate unacceptably high rates of RAs if used; an example of such an operation would be Closely-Spaced Parallel Operations (CSPO)
- ACAS Xu: For use with Unmanned Aircraft Systems (UAS), it is a complete Detect and Avoid (DAA) solution and designed to facilitate the integration of UAS into civil airspace by maintaining or improving current safety while meeting International Civil Aviation Organization (ICAO) requirements for global interoperability

#### Activity: Airborne Collision Avoidance System X (ACAS X), G01A.05-02

Airborne Collision Avoidance System X (ACAS X)

# Target: Complete Airborne Collision Avoidance System X (ACAS X) sXu Minimum Operational Performance Standards (MOPS).

Complete Airborne Collision Avoidance System X (ACAS X) sXu Minimum Operational Performance Standards (MOPS).

## Target: Complete Airborne Collision Avoidance System X (ACAS X) Xr Run 2 Logic Software Release.

Complete Airborne Collision Avoidance System X (ACAS X) Xr Run 2 Logic Software Release.

## Initiative: Traffic Flow Management System (TFMS) Enhancement 4

TFMS Enhancement 4 is developing two capabilities, Improved Demand Predictions (IDP) and Integrated Departure Route Planner (IDRP). IDP will improve TFMS demand prediction of air traffic NAS resources. IDRP will deliver strategic/tactical forecasts of departure route and fix status due to convective weather and volume for specific terminals. It provides traffic managers with semi-automated resolution algorithms to "solve" departure constraints.

#### Activity: Traffic Flow Management System (TFMS) Enhancement 4, G05A.05-03

TFMS adds new capabilities and improvements via the TFMS Enhancement process. TFMS Enhancement 4, approved by the FAA Joint Resources Council (JRC) on June 21, 2017, will provide new NextGen Midterm TFM/CATM capabilities between FY 2017 and FY 2022. Improved Demand Prediction (IDP) will improve TFMS demand prediction. Integrated Departure Route Planning (IDRP) will be adapted for six metroplex areas: New York (N90); Chicago (C90); Dallas (D10); Philadelphia (PHL); Potomac - DC Metro (PCT)); and Southern California (SCT). TFMS Ingestion of Weather Data will replace the legacy Corridor Integrated Weather System (CIWS) Data Distribution System (CDDS) prototype with the new System Wide Information System (SWIM) Common Support Services - Weather (CSS-Wx) service.

Target: Complete Traffic Flow Management System (TFMS) Enhancement 4 (E4) ReRoute Impact Assessment (RRIA) Software Integration Test (SWIT).

Complete Traffic Flow Management System (TFMS) Enhancement 4 (E4) ReRoute Impact Assessment (RRIA) Software Integration Test (SWIT).

**Target: Implement Departure Spacing Program (DSP) enhancements.** 

Implement Departure Spacing Program (DSP) enhancements.

Target: Implement Pre-Departure Reroutes/Airborne Reroutes (PDRR/ABRR) enhancements.

Implement Pre-Departure Reroutes/Airborne Reroutes (PDRR/ABRR) enhancements.

## Initiative: Airport Surveillance Radar Model 11 (ASR-11) - Sustainment

The ASR-11 Technology Refresh program replaces and upgrades obsolete ASR-11 Commercial Off-The-Shelf (COTS) hardware and software to ensure the continued reliable and cost effective operation of the radar system through its designated lifecycle. This is an ongoing program to address obsolescence and maintenance issues and will be accomplished in separate sequential 5 -year segments. The ASR-11 Sustainment 2 addresses the following shortfalls identified in the approved ASR-11 Sustainment 2 Implementation Strategy and Planning Document: 1) Site Control Data Interface (SCDI) /Operator Maintenance Terminal (OMT) obsolescence. 2) Uninterruptible Power Supply (UPS) capacitor at end of life expectancy. 3) Bring the ASR-11 Radar up-to-date in meeting current Occupational Safety & Health Administration (OSHA) safety regulations. The Sustainment 2 Final Investment Decision (FID) was approved in December 2013 and In Service Decision (ISD) was achieved on August 7, 2018. Sustainment 2 deployment activities are planned to be completed by September 2020. This initiative also includes planning for ASR-11 Sustainment 3. Sustainment 3 achieved IARD in Q1 of FY20 and FID is planned in Q1 of FY22.

## Activity: Solution Implementation for ASR-11 Sustainment 3, S03.02-07

The Airport Surveillance Radar Model 11 (ASR-11) Sustainment 3 program will address parts obsolescence, maintenance issues, and current National Air Space (NAS) requirements to ensure continued reliable and cost effective operation of all ASR-11 configurations through their designated lifecycles.

Target: Airport Surveillance Radar Model 11 (ASR-11) Sustainment 3 – Complete Final Investment Decision (FID) Joint Resources Council (JRC) Pre-Brief to AJM-4.

Airport Surveillance Radar Model 11 (ASR-11) Sustainment 3 – Complete Final Investment Decision (FID) Joint Resources Council (JRC) Pre-Brief to AJM-4.

Target: Airport Surveillance Radar Model 11 (ASR-11) Sustainment 3 – Initiate Check Point 2 with IP&A.

Airport Surveillance Radar Model 11 (ASR-11) Sustainment 3 – Initiate Check Point 2 with IP&A.

#### **Initiative: ASR-9 Sustainment**

The Airport Surveillance Radar Model 9 (ASR-9) provides aircraft target and weather information to air traffic controllers, which reduces delays and improves safety at high activity airports. The ASR-9 tracks all aircraft within its range and provides those tracks, as well as six-level weather intensity information, to terminal automation systems. Air traffic controllers utilize this information to safely and efficiently separate aircraft in the terminal environment. The ASR-9 also provides data to AMASS and ASDE-X to aid in the prevention of accidents resulting from runway incursions. Without modifications to the ASR-9, the system will continue to experience decreasing reliability and availability over time. The supportability of the ASR-9 system is at risk due to the lack of commercial availability of some components. The ASR-9 was procured in the mid-1980s and fielded between 1989 and 1994. The system is expected to remain operational until 2035; however, the radar systems are becoming difficult to maintain. The system uses hardware and software architectures which are becoming increasingly difficult to procure, and some of which are obsolete, resulting in cannibalization and re-engineering for short-term results as a means to repair or refurbish in order to maintain this vital system. The Sustainment 2 Final Investment Decision (FID) was approved on June 27, 2012 to address obsolescence and supply/support issues of system Lowest Replaceable Units (LRUs) and components within the ASR-9 system. The sustainment of the ASR-9 aligns with the NAS Enterprise Architecture Surveillance Roadmap Decision Points. Based on this strategy ASR-9 systems will remain in service through 2035.

## Activity: ASR-9 Sustainment 3, S03.01-12

The ASR-9 Sustainment 3 program replaces or upgrades obsolete ASR-9 hardware and software to ensure the continued operation of the radar system. This is an ongoing program that is accomplished in phases to address obsolescence and supportability issues. The Sustainment 3 program will sustain the service life of all 135 ASR-9 systems; 121 operational sites, seven (7) Department of Defense (DoD) sites, and seven (7) support systems. The ASR-9 system is a non-cooperative (primary) surveillance radar that provides aircraft position and weather information to automation systems for air traffic controllers in terminal airspace. The ASR-9 system supports aircraft separation standards, air traffic operational efficiency, and improves safety at congested airports. The ASR-9 also provides data under Memorandum of Agreements with the DoD and Homeland Security, through the Defense Radar Program, and to the Department of Treasury and National Weather Service through separate agreements. The DoD uses ASR-9 surveillance data to monitor and detect non-transponder equipped intruders in terminal airspace. The system was procured in the mid-1980s, fielded between 1989 and 1994, and has significantly exceeded the expected 20-year lifecycle. Future ASR-9 sustainment efforts are dependent upon ongoing supportability assessments to ensure ASR-9s remain operational through their designated lifecycle. The Final Investment Decision (FID) for ASR-9 Sustainment 3 was approved on March 28, 2018. Implementation is planned to begin in 2023 and continue through 2025.

Target: Airport Surveillance Radar Model-9 (ASR-9) Sustainment 3 - Hardline Cables and Connectors (HCC) System Support Modification Release.

Airport Surveillance Radar Model-9 (ASR-9) Sustainment 3 - Hardline Cables and Connectors (HCC) System Support Modification Release.

Target: Airport Surveillance Radar Model-9 (ASR-9) Sustainment 3 - Data Communications Equipment (DCE) Local Site Development Test Complete.

Airport Surveillance Radar Model-9 (ASR-9) Sustainment 3 - Data Communications Equipment (DCE) Local Site Development Test Complete.

Target: Airport Surveillance Radar Model-9 (ASR-9) Sustainment 3 - Award the Multi Voltage Power Supply (MVPS) Contract.

Airport Surveillance Radar Model-9 (ASR-9) Sustainment 3 - Award the Multi Voltage Power Supply (MVPS) Contract.

#### **Initiative: Time-based Flow Management (TBFM)**

TBFM uses Time Based Metering (TBM) system uses time-based metering to better utilize NAS capacity by improving traffic flow management of aircraft approaching and departing congested airspace and airports. TBFM has been deployed and is operational at the 20 Air Route Traffic Control Centers (ARTCCs) and adapted for most major airports served by those centers. TBFM enhances air traffic operations, by reducing delays and increasing efficiency of airline operations. Enhancements to the TBFM system directly supports NextGen Portfolio concepts. TBFM Enhancement 1 (G02A.01-06) will continue to provide time-based metering solutions across all phases of flight to include terminal airspace. TBFM Enhancement 1 will implement additional NextGen concepts, such as optimized descent during time-based metering and Terminal Sequencing and Spacing (TSAS) to provide efficient sequencing and runway assignment by making the metering plan visible to the Air Traffic Control (ATC) terminal and extending time based metering to the runway. The TSAS capability will extend the aircraft's trajectory plan into the terminal airspace up to the runway to enable better predictability and accuracy for support of advanced Performance Based Navigation (PBN) procedures such as Required Navigation Performance (RNP). Also in TBFM Enhancement 1 is the expansion of the Integrated Departure/Arrival Capability (IDAC) to additional locations. IDAC streamlines and automates the monitoring and scheduling process for aircraft departures. This increases efficiency for departure operations. TBFM Sustainment 1 will replace existing hardware with new hardware in the FY 2022 -2023 timeframe. The current hardware began to reach its end of service and maintenance in 2017. The TBFM investments are part of the Trajectory Based Operations (TBO) initiative which uses an integrated and holistic implementation approach of the capabilities.

## Activity: Time Based Flow Management (TBFM) Enhancement 1, G02A.01-06

Time Based Flow Management (TBFM) Enhancement 1

Target: Time Based Flow Management (TBFM) Enhancement 1 - Last Integrated Departure/Arrival Capability (IDAC) site deployed.

Time Based Flow Management (TBFM) Enhancement 1 - Last Integrated Departure/Arrival Capability (IDAC) site deployed.

Target: Time Based Flow Management (TBFM) Enhancement 1 - Integrated Departure/Arrival Capability (IDAC) deployed at Denver Center (ZDV) and Denver Tower (DEN).

Time Based Flow Management (TBFM) Enhancement 1 - Integrated Departure/Arrival Capability (IDAC) deployed at Denver Center (ZDV) and Denver Tower (DEN).

Target: Time Based Flow Management (TBFM) Enhancement 1 - Terminal Sequencing and Spacing (TSAS) Air Traffic (AT) Training Materials Delivered.

Time Based Flow Management (TBFM) Enhancement 1 - Terminal Sequencing and Spacing (TSAS) Air Traffic (AT) Training Materials Delivered.

## **Initiative: Terminal Flight Data Manager (TFDM)**

The TFDM program will deliver to tower Air Traffic Controllers (ATC) and FAA traffic managers NextGen decision support capabilities that integrate flight, surface surveillance, and traffic management information. TFDM will provide an approach for the collection, distribution, and update of flight data information in the terminal area and to improve access to information for the safe and efficient control of air traffic. The use of Electronic Flight Data and Strips (EFD/EFS) will allow tower controllers to maintain an integrated view of the air traffic environment, improving situational awareness of airport operations. TFDM decision support capabilities will promote safe and efficient airport operations in managing airport surface traffic sequencing and scheduling. TFDM will automate the manual flight data processes to enable enhanced data sharing between the Tower, the En Route, and Approach Control ATCs, Traffic Flow Management (TFM), and Flight/Airline Operations domains. This eliminates the necessity of physical exchange of flight data, reduces telephone exchange of data between facilities, and reduces manual re-entry of data among multiple ATC systems. This will also facilitate data exchange with aviation partners (airlines and flight operators) to support collaborative decision making. In addition, there are a number of legacy systems that TFDM will replace which would lead to greater efficiency and cost avoidance. The systems included are Advanced Electronic Flight Strips (AEFS), Surface Movement Advisor (SMA), Airport Resource Management Tool (ARMT), Departure Spacing Program (DSP), and Electronic Flight Strip Transfer System (EFSTS). TFDM will deliver multiple NAS benefits; reduced surface delay, taxi time, fuel burn, and reduced CO2 emissions, improved airport utilization during times when demand exceeds capacity, improved shared situational awareness and enhanced safety.

#### Activity: Terminal Flight Data Manager (TFDM), G06A.03-01

TFDM program will deliver to tower Air Traffic Controllers (ATC) and FAA traffic managers NextGen decision support capabilities that integrate flight, surface surveillance, and traffic management information. TFDM will provide an approach for the collection, distribution, and update of flight data information in the terminal area and to improve access to information for the safe and efficient control of air traffic.

Target: Terminal Flight Data Manager (TFDM) - Build 2 Development Test (DT) Complete.

Terminal Flight Data Manager (TFDM) - Build 2 Development Test (DT) Complete.

Target: Terminal Flight Data Manager (TFDM) - Complete Build 1 Operational Test (OT) WJHTC Assessment.

Terminal Flight Data Manager (TFDM) - Complete Build 1 Operational Test (OT) WJHTC Assessment.

Target: Terminal Flight Data Manager (TFDM) - Begin Build 2.1 Post Development Test (pDT).

Terminal Flight Data Manager (TFDM) - Begin Build 2.1 Post Development Test (pDT).

Target: Terminal Flight Data Manager (TFDM) - Complete Build 2.1 Software Development.

Terminal Flight Data Manager (TFDM) - Complete Build 2.1 Software Development.

## Target: Complete Terminal Flight Data Manager (TFDM) Waterfall Alignment with Industry.

Complete Terminal Flight Data Manager (TFDM) Waterfall Alignment with Industry.

#### **Initiative: Offshore Automation (OA)**

The OA program will replace legacy automation systems at the four offshore facilities in Anchorage Air Route Traffic Control Center (ARTCC), Honolulu Control Facility (HCF), Guam Combined Center Radar Approach Control (CERAP), and San Juan CERAP with National Airspace System (NAS) standardized automation solutions. The current automation systems include Surveillance Data Processing (SDP) Microprocessor En Route Automated Radar Tracking System (Micro-EARTS) at all four sites, and Flight Data Processing (FDP) systems currently provided by three unique systems: FDP System (FDPS) at Anchorage, Offshore Flight Data Processing System (OFDPS) at HCF with a data feed to Guam; and Miami ARTCC's En Route Automation Modernization (ERAM) connection that uses unique software adaptation to San Juan.

The OA program plans to address a current sustainability concern associated with the OFDPS system being used in HCF and provide nationally supported NAS standardized platforms that will bring the four facilities into strategic alignment with the Contiguous United States (CONUS) NAS. The benefits of this effort will allow for future Next Generation Air Traffic System (NextGen) development, automation redundancy and resiliency, ease future lifecycle challenges associated with the legacy systems, including reducing the number of automation platforms requiring separate maintenance and training support, and allow for greater workforce flexibility.

Activity: Offshore Automation (OA), A38.01-01

Offshore Automation (OA)

**Target: Award Offshore Automation prime contract to vendor.** 

Award Offshore Automation prime contract to vendor.

Target: Complete Offshore Automation (OA) Final Implementation Strategy Planning Document (ISPD).

Complete Offshore Automation (OA) Final Implementation Strategy Planning Document (ISPD).

#### Initiative: En Route Automation Modernization (ERAM) Enhancements 2

The ERAM Enhancements 2 (EE2) program provides software enhancements for the en route sector controller team. This multi-year effort improves efficiency and effectiveness of en route sector operations through enhanced trajectory management and improved collaboration between Radar Position (R-Side) and Radar Associate Position (D-Side) controllers. It involves upgrades to flight data management and system support functions. Current automation capabilities are limited in providing the requisite accuracy, consistency, and usability needed during high demand scenarios which can result less efficient use of airspace. The EE2 will develop and implement improvements to en route automation and procedures, building upon existing ERAM capabilities and leveraging previous NextGen pre-implementation activities. Final Investment Decision (FID) was achieved in December 2016. Prime contractor system engineering, software development, and implementation activities are ongoing and per original baseline, were planned to complete in FY 2023; however due to recent funding adjustments a baseline change decision (BCD) occurred in December 2018 with revised program milestones, and the program will now be completed in CY2024. A preliminary allocation of each enhancement to a specific ERAM release has been determined, however refinements are ongoing. The specific enhancements are listed below and will be deployed as a series of ERAM releases throughout the program lifecycle. Conflict Probe Enhancements - Improve representation of adherence bounds used to determine the need for computing a new aircraft trajectory, minimize false alerts; International Common Harmonization -Expand the automated coordination of flight data and aircraft control with the Canadian Air Navigation Service Provider (NavCanada); ERAM Adaptation Refinements - Improve the ability of the Air Route Traffic Control Center (ARTCC) support personnel.

Activity: En Route Automation Modernization (ERAM) Enhancements 2, G01A.01-08 En Route Automation Modernization (ERAM) Enhancements 2.

Target: En Route Automation Modernization (ERAM) Enhancements 2 - Complete System Engineering Design and Requirements for Systems Issue Group (SIG) 1886 Aircraft Trajectory Modeling - Kinetic.

En Route Automation Modernization (ERAM) Enhancements 2 - Complete System Engineering Design and Requirements for Systems Issue Group (SIG) 1886 Aircraft Trajectory Modeling - Kinetic.

Target: En Route Automation Modernization (ERAM) Enhancements 2 - Complete System Engineering Design and Requirements for Systems Issue Group (SIG) 2017 - International Civil Aviation Organization (ICAO) Equipment Template Enhancements.

En Route Automation Modernization (ERAM) Enhancements 2 - Complete System Engineering Design and Requirements for Systems Issue Group (SIG) 2017 - International Civil Aviation Organization (ICAO) Equipment Template Enhancements.

Target: En Route Automation Modernization (ERAM) Enhancements 2 - Complete Nav Canada Automated Handoff Enterprise Testing.

En Route Automation Modernization (ERAM) Enhancements 2 - Complete Nav Canada Automated Handoff Enterprise Testing.

#### **Initiative: Internal Work Initiative: ADS-B NAS Wide Implementation**

Air Traffic Control (ATC) surveillance and aircraft separation services are currently provided using primary and secondary surveillance radar systems in the U.S. National Airspace System (NAS). A need to improve the FAA's surveillance capabilities, in the surface, terminal, en route and oceanic airspace, must be balanced with a more efficient and affordable solution to accommodate the projected capacity demands. The Federal Aviation Administration (FAA) determined that Automatic Dependent Surveillance-Broadcast (ADS-B), with Traffic Information Services-Broadcast (TIS-B) and Flight Information Services-Broadcast (FIS-B), is a viable technology solution to meet the challenges of the future. This ability to use the ADS-B technology as a surveillance source is made possible due to advancements in surveillance techniques, satellite-based navigation, avionics, and communication data links.

### **Activity: ADS-B NAS Wide Implementation**

Automatic Dependent Surveillance-Broadcast (ADS-B) is a cornerstone technology for NextGen. It reduces delays and enhances safety by using an aircraft's broadcasted position, instead of position information from traditional radar. ADS-B is an advanced surveillance technology that provides highly accurate and more comprehensive information. Aircraft position (longitude, latitude, altitude, and time) is determined using the Global Navigation Satellite System (GNSS), and/or an internal navigational reference system, or other navigation aids. The aircraft's ADS-B equipment processes this position information, along with other flight parameters for a periodic broadcast transmission, typically once a second, to airborne and ground-based ADS-B receivers. The information is used to display aircraft position on en route and terminal automation systems.

# Target: Achieve Initial Operating Capability (IOC) for Wide Area Multilateration (WAM) expansion at Southern California TRACON (SCT).

Achieve Initial Operating Capability (IOC) for Wide Area Multilateration (WAM) expansion at Southern California TRACON (SCT).

# Activity: Automatic Dependent Surveillance-Broadcast (ADS-B) NAS Wide Implementation - G02S.01-02

Automatic Dependent Surveillance-Broadcast (ADS-B) NAS Wide Implementation - G02S.01-02

# Target: Commence Cockpit Display of Traffic Information (CDTI) Assisted Separation (CAS) Flights.

Commence Cockpit Display of Traffic Information (CDTI) Assisted Separation (CAS) Flights.

## Activity: Advanced Surveillance Enhanced Procedural Separation (ASEPS), G02S.04-01

The Surveillance and Broadcast Services (SBS) ASEPS program, is exploring near, mid, and long-term enhancements in surveillance to support efficiencies in oceanic Flight Information Regions (FIRs). Enhancing surveillance, when coupled with improvements in communications, can provide significant improvements to air navigation services by reducing separation minima for optimum routing. New surveillance technologies and enhanced use of existing surveillance sources present the opportunity to develop new International Civil Aviation Organization separation standards at the global level which once implemented present the potential for improving the safety and efficiency of oceanic operations in U.S. managed airspace.

Target: Identify Space-Based ADS-B (SBA) applications to bring forward for enhancing Oceanic operations in support of an Investment Analysis Readiness Decision (IARD).

Identify Space-Based ADS-B (SBA) applications to bring forward for enhancing Oceanic operations in support of an Investment Analysis Readiness Decision (IARD).

Target: Provide recommendation on whether to continue procurement of nonoperational Space-Based ADS-B (SBA) data.

Provide recommendation on whether to continue procurement of non-operational Space-Based ADS-B (SBA) data.

Target: Complete draft artifacts to support Advanced Surveillance Enhanced Procedural Separation (ASEPS) Investment Analysis Readiness Decision (IARD).

Complete draft artifacts to support Advanced Surveillance Enhanced Procedural Separation (ASEPS) Investment Analysis Readiness Decision (IARD).

# Activity: Automatic Dependent Surveillance-Broadcast (ADS-B) NAS Wide Implementation - Baseline Services Future Segments, G02S.03-06

The Final Investment Decision (FID) for ADS-B BSFS occurred on May 15, 2019. The program plans to sustain baseline services and applications including continuing leased ADS-B services, implementing mitigations for spectrum congestion, and re-competing the ADS-B service contract. The ADS-B system has both airborne and ground-based elements, including an infrastructure to transmit data to pilots as well as ATC facilities across the NAS. Other services provided include Traffic Information Service – Broadcast (TIS-B), Flight Information Service – Broadcast (FIS-B), Automatic Dependent Surveillance - Rebroadcast (ADS-R), and Wide Area Multilateration (WAM). The program will also provide program management to support mitigations against jamming and spoofing, dedicated support for Gulf of Mexico platform owners, and upgrades to automation platforms.

## Target: ADS-B Baseline Services Future Segments - First radar shutdown completed.

ADS-B Baseline Services Future Segments - First radar shutdown completed.

Target: ADS-B Divestiture - Complete Radar Divestiture Safety Risk Management Panels (SRMP) for two (2) sites by March 2022.

ADS-B Divestiture - Complete Radar Divestiture Safety Risk Management Panels (SRMP) for two (2) sites by March 2022.

Target: ADS-B Divestiture - Complete Radar Divestiture Safety Risk Management Panels (SRMP) at a total of four (4) sites by September 2022.

ADS-B Divestiture - Complete Radar Divestiture Safety Risk Management Panels (SRMP) at a total of four (4) sites by September 2022.

Target: Transition 2 ARTCCs to Track Based Display Mode (TBDM) with ADS-B adapted for 3NM separation.

Transition 2 ARTCCs to Track Based Display Mode (TBDM) with ADS-B adapted for 3NM separation.

Target: Conduct coordination briefings with 6 ARTCCs to facilitate utilization of ADS-B to expand 3NM separation within En Route airspace to enhance operational efficiencies.

Conduct coordination briefings with 6 ARTCCs to facilitate utilization of ADS-B to expand 3NM separation within En Route airspace to enhance operational efficiencies.

Target: Complete ADS-B Baseline Services Future Segment (BSFS) Phase 2 Investment Analysis Readiness Decision (IARD) Artifacts.

Complete ADS-B Baseline Services Future Segment (BSFS) Phase 2 Investment Analysis Readiness Decision (IARD) Artifacts.

Target: Complete Wide Area Multilateration (WAM) Implementation Service Acceptance Testing (ISAT) for 1 constellation.

Complete Wide Area Multilateration (WAM) Implementation Service Acceptance Testing (ISAT) for 1 constellation.

Target: Complete Automatic Dependent Surveillance - Broadcast (ADS-B) testing and commissioning of the Automated Weather Observation System (AWOS) and Remote Communication Air-Ground (RCAG) facilities on the Eugene Island 251A platform in the Gulf of Mexico.

Complete Automatic Dependent Surveillance - Broadcast (ADS-B) testing and commissioning of the Automated Weather Observation System (AWOS) and Remote Communication Air-Ground (RCAG) facilities on the Eugene Island 251A platform in the Gulf of Mexico.

Target: Install Automatic Dependent Surveillance - Broadcast (ADS-B), Remote Communications Air/Ground (RCAG), and Automated Weather Observation System (AWOS) equipment onto Chevron's Anchor Platform in Ingleside, TX.

Install Automatic Dependent Surveillance - Broadcast (ADS-B), Remote Communications Air/Ground (RCAG), and Automated Weather Observation System (AWOS) equipment onto Chevron's Anchor Platform in Ingleside, TX.

### Activity: ADS-B In Applications - Interval Management (IM) Planning, G01S.02-01

ADS-B In Applications – Interval Management (IM) consists of a set of ground and flight-deck capabilities and procedures that are used in combination by air traffic controllers and flight crews to more efficiently and precisely manage spacing between aircraft. An air traffic controller can issue an IM clearance that allows flight crews to manage spacing through speed adjustments generated by onboard IM avionics until reaching a planned termination point. New flight-deck functions implemented in Flight Interval Management (FIM) avionics will provide speed guidance to a flight crew to achieve a relative spacing interval from another aircraft. IM is a component of the future Trajectory Based Operations (TBO) vision, where air traffic controllers may opt to provide IM clearances to flights to manage their spacing intervals relative to other aircraft. The use of IM clearances in a TBO environment supports the controller in more precisely meeting time-based meter times or other spacing objectives. IM is applicable to en route and terminal airspace and will require investments in air traffic management and decision support automation systems, as well as flight-deck avionics.

## Target: Develop a strategic plan for ADS-B In outlining the revised scope of work to be executed in FY22 and FY23 based on the available funding.

Develop a strategic plan for ADS-B In outlining the revised scope of work to be executed in FY22 and FY23 based on the available funding.

Activity: Automatic Dependent Surveillance-Broadcast (ADS-B) NAS Wide Implementation - Enhancements, G02S.06-01

TBD

Target: Submit ADS-B Enhancement Information System Security Assessment (ISSA).

Submit ADS-B Enhancement Information System Security Assessment (ISSA).

Target: Automatic Dependent Surveillance-Broadcast (ADS-B) - Enhancements - Complete technical evaluation of security proposal in collaboration with AJW/ACG.

Automatic Dependent Surveillance-Broadcast (ADS-B) - Enhancements - Complete technical evaluation of security proposal in collaboration with AJW/ACG.

Target: ADS-B Enhancements - Submit Selected Altitude Significant Issues Group (SIG) whitepaper for review.

ADS-B Enhancements - Submit Selected Altitude Significant Issues Group (SIG) whitepaper for review.

Target: ADS-B Enhancements - Conduct Air Traffic Subject Matter Expert (SME) Computer Human Interface (CHI) meetings for Selected Altitude.

ADS-B Enhancements - Conduct Air Traffic Subject Matter Expert (SME) Computer Human Interface (CHI) meetings for Selected Altitude.

Target: ADS-B Enhancements - Conduct Early User Involvement Event (EUIE) for ADS-B In Indicators.

ADS-B Enhancements - Conduct Early User Involvement Event (EUIE) for ADS-B In Indicators.

Target: ADS-B Enhancements - Complete service expansion assessment and preliminary site coverage.

ADS-B Enhancements - Complete service expansion assessment and preliminary site coverage.

## Initiative: Surveillance Acquisition and Sustainment (SAS) (AJM-41)

The Surveillance Acquisition and Sustainment (SAS) Group will provide programmatic excellence in the acquisition, deployment and sustainment of radar surveillance systems to support safe and efficient air traffic management by the FAA and DoD. In addition, AJM-41 will sustain radar surveillance services by implementing safety, security and technological enhancements to bridge critical system capabilities until replaced or divested; and acquire cooperative radar systems, non-cooperative radar systems and other specialty solutions to sustain radar surveillance capabilities beyond 2035.

#### **Activity: Infill Radar**

The purpose of the Infill Radar program is to establish a validation process for infill radars to permit the U.S. Air Force (USAF) to deploy and operate them in the National Airspace System (NAS). The Infill Radar is a non-cooperative radar that can provide coverage in locations where wind turbine radar interference occurs.

Infill Radar program objectives are to:

- Determine and define necessary validation processes, including testing of infill radars
- Determine and develop necessary documentation and artifacts
- Provide subject matter expertise for the review and revisions of the necessary documentation.

# Target: Infill – Obtain ANG-B1, ANG-C5, and AJV-S approval/signature on Concept of Operations (ConOps)

Infill – Obtain ANG-B1, ANG-C5, and AJV-S approval/signature on Concept of Operations (ConOps).

## Target: Infill – Complete Infill Radar Qualification Process Document.

Infill - Complete Infill Radar Qualification Process Document.

#### Activity: Air Traffic Control Beacon Interrogator Model 6 (ATCBI-6) Mode 5

The Air Traffic Control Beacon Interrogator Model 6 (ATCBI-6) cooperative radars located at Air Route Surveillance Radar Model 4 (ARSR-4) non-cooperative radar sites operate with a Mode 4 Interrogator Friend or Foe (IFF) capability to support the Department of Defense (DoD) mission and NATO requirements. The ATCBI-6 Mode 5 program is fulfilling a DoD requirement to install Mode 5 capabilities at the 51 sites that currently have Mode 4 capabilities, primarily located on the U.S. borders and in Hawaii and Alaska.

Target: Air Traffic Control Beacon Interrogator Model 6 (ATCBI-6) Mode 5 - Milestone 4: Successful Completion of Development Test (DT) Test Readiness Review (TRR).

Air Traffic Control Beacon Interrogator Model 6 (ATCBI-6) Mode 5 - Milestone 4: Successful Completion of Development Test (DT) Test Readiness Review (TRR).

Target: Air Traffic Control Beacon Interrogator Model 6 (ATCBI-6) Mode 5 - Obtain Air Traffic Control Radar Beacon System (ATCRBS) Identification Friend or Foe (IFF) Mark XIIA Systems (AIMS) Box Level Certification.

Air Traffic Control Beacon Interrogator Model 6 (ATCBI-6) Mode 5 - Obtain Air Traffic Control Radar Beacon System (ATCRBS) Identification Friend or Foe (IFF) Mark XIIA Systems (AIMS) Box Level Certification.

## Activity: Airport Surveillance Radar - Replacement (ASR-R), S03.06-01

Ground based Non-cooperative (primary) surveillance systems determine an aircraft's position independently, without the use of on-board avionics. There are two types of non-cooperative surveillance systems in the National Airspace System (NAS); Long Range (NAS Defense) and Terminal. The Long Range systems include the Air Route Surveillance Radar (ARSR-4) and the Common Air Route Surveillance Radar (CARSR). Terminal Surveillance Radars include the Airport Surveillance Radar (ASR) – 8, ASR-9 and ASR-11. Non-cooperative surveillance is needed for surveillance of non-equipped aircraft (aircraft without transponders and/or Automatic Dependent Surveillance-Broadcast (ADS-B)), aircraft with failed avionics, and determination of weather.

Currently there are 368 non-cooperative surveillance systems in the NAS (245 Terminal and 123 Long Range). Thirty-two terminal systems are expected to be divested by 2025. The ASR-R program will analyze and acquire the long-term solution to meet the FAA's terminal non-cooperative surveillance requirements.

The ASR-R program will evaluate:

- Continued sustainment through Lowest Replicable Unit (LRU) replacement
- Incorporating new functionality/efficiencies

The ASR-R program is in the planning and investment analysis phase. Investment Analysis Readiness Decision (IARD) is planned for 3rd quarter FY 2024, Initial Investment Decision (IID) planned for 1st quarter FY 2026, and the Final Investment Decision (FID) is planned for 1st quarter FY 2028.

## Target: Airport Surveillance Radar - Replacement (ASR-R) - Create ASR-R Shortfall Analysis Report.

Airport Surveillance Radar - Replacement (ASR-R) - Create ASR-R Shortfall Analysis Report.

# Target: Airport Surveillance Radar - Replacement (ASR-R) - Submit Acquisition Category (ACAT) Determination Form.

Airport Surveillance Radar - Replacement (ASR-R) - Submit Acquisition Category (ACAT) Determination Form.

Target: Airport Surveillance Radar - Replacement (ASR-R) - Complete Concept and Requirements Definition Readiness (CRDR) Plan for submission to FAA Enterprise Architecture Board (FEAB).

Airport Surveillance Radar - Replacement (ASR-R) - Complete Concept and Requirements Definition Readiness (CRDR) Plan for submission to FAA Enterprise Architecture Board (FEAB).

## Activity: Terminal & En Route Surveillance Technology Refresh Portfolio (TES TRP)

The Terminal and En Route Surveillance (TES) Technology Refresh Portfolio (TRP) is planning for an Investment Analysis Readiness Decision (IARD) in November 2021. The TES TRP will provide required sustainment and maintenance for the following cooperative and non-cooperative surveillance systems to continue their operational use until 2035:

- Cooperative ATCBI-5, ATCBI-6, Mode-S, MSSR (ASR-11)
- Non-Cooperative ASR-8, ASR-9, ASR-11

# Target: Terminal & En Route Surveillance Tech Refresh Portfolio (TES TRP) - Submit final Execution Plan to IP&A at Checkpoint 4.

Terminal & En Route Surveillance Tech Refresh Portfolio (TES TRP) - Submit final Execution Plan to IP&A at Checkpoint 4.

# Target: Terminal & En Route Surveillance Portfolio (TES TRP) - Stakeholder Governing Body (SGB) approves FY+1 Plan.

Terminal & En Route Surveillance Portfolio (TES TRP) - Stakeholder Governing Body (SGB) approves FY+1 Plan.

# Target: Terminal & En Route Surveillance Portfolio (TES TRP) - Stakeholder Governing Body (SGB) reviews Portfolio Performance.

Terminal & En Route Surveillance Portfolio (TES TRP) - Stakeholder Governing Body (SGB) reviews Portfolio Performance.

### **Activity: Surveillance Acquisition & Sustainment (SAS)**

Surveillance Acquisition & Sustainment (SAS)

# Target: Surveillance Acquisition & Sustainment (SAS) - Develop AJM-41 response plan and execute action plan for FY20 FedView Survey.

Surveillance Acquisition & Sustainment (SAS) - Develop AJM-41 response plan and execute action plan for FY20 FedView Survey.

# Target: Surveillance Acquisition & Sustainment (SAS) - PROPEL - expand to include additional development approaches and Stakeholders.

Surveillance Acquisition & Sustainment (SAS) - PROPEL - expand to include additional development approaches and Stakeholders.

### Activity: NAVAIDS Monitoring Equipment (NME), M08.41-02

The Navaids Monitoring Equipment (NME) program will replace or upgrade legacy air traffic control and monitoring systems operating in the NAS. Two legacy systems are used in the NAS, ICMS and FA-30000 (Universal Interlock Controller). These systems, which are typically located in the tower and equipment room, are used by air traffic control specialists (ATCS) and airway transportation system specialists (ATSS) for controlling and monitoring a predefined set of Navaids such as instrument landing systems (ILS), Airport Lighting Systems, runway visual range (RVR) equipment, runway end identifier lights (REIL), precision approach path indicator (PAPI) light arrays, and other Navaids located at an airport. The program will establish a common requirements baseline and provide a streamlined software, training and logistics support across all systems to approximately 32 airports. An Investment Analysis Readiness Decision (IARD) was approved in December 2016; and an Initial Investment Decision (IID) approved on September 18, 2019. The Final Investment Decision (FID) was approved in December 2020.

# Target: Navaids Monitoring Equipment (NME) - System Specification Document completed.

Navaids Monitoring Equipment (NME) - System Specification Document completed.

#### **Target: Navaids Monitoring Equipment (NME) - Complete Disposition Plan.**

Navaids Monitoring Equipment (NME) - Complete Disposition Plan.

## Target: Navaids Monitoring Equipment (NME) - Complete Development Test (DT) Plan and Procedures.

Navaids Monitoring Equipment (NME) - Complete Development Test (DT) Plan and Procedures.

# Target: Develop Approach Lighting System with Sequence Flashing Lights (ALSF) interface for the FA-30000 V3+.

Develop Approach Lighting System with Sequence Flashing Lights (ALSF) interface for the FA-30000 V3+.

## Activity: Mode Select (Mode S) Beacon Replacement System (MSBRS) Phase 1A, S03.01-15

The legacy Mode S System is a Cooperative Surveillance Radar (CSR) that supports Air Traffic Control (ATC) in Terminal and En Route airspaces. The Mode S also interrogates and receives aircraft identification and altitude information from equipped aircraft. There are currently 137 operational and 11 support Mode S systems in the National Airspace System (NAS). The legacy Mode S System will be more than 25 years old by the year 2020 and is suffering from a shortage of replacement parts and/or repair capabilities.

The Mode S Beacon Replacement System (MSBRS) Program will replace unsustainable portions of the legacy Mode S system with a design that incorporates modern surveillance interfaces, defends and mitigates cyber security threats, and provides modifications needed to ensure supportability and sustainment of the systems through at least 2035. Phase 1 of the MSRBS Program will address critical obsolescence and end of service life issues for terminal CSR systems that will remain in the NAS for the foreseeable future. Phase 1 is divided into two phases. Phase 1A will include design, development and test, and limited production with a total number of 9 systems. Phase 1B will include at least 41 systems to fulfill minimum NAS Surveillance requirements. The existing antenna, encoder, and rotary joint will be retained.

# Target: Mode S Beacon Replacement System (MSBRS) Phase 1A - Software In Plant Development Test Start.

Mode S Beacon Replacement System (MSBRS) Phase 1A - Software In Plant Development Test Start.

# Target: Mode S Beacon Replacement System (MSBRS) Phase 1A - Installation of First Article System at WJHTC.

Mode S Beacon Replacement System (MSBRS) Phase 1A - Installation of First Article System at WJHTC.

# Target: Mode S Beacon Replacement System (MSBRS) Phase 1A - Informal User Demonstration Event.

Mode S Beacon Replacement System (MSBRS) Phase 1A - Informal User Demonstration Event.

#### Activity: Common Terminal Digitizer (CTD), A04.07-02

The CTD Program purpose is to procure and implement primary and secondary radar digitizers to convert ASR-8 analog radar signals to the digital data format. These systems will digitize ASR-8 surveillance systems in support of the Standard Terminal Automation Replacement System (STARS), as a part of the Terminal Automation Modernization and Replacement (TAMR) Program. A total of 34 TAMR CTDs were planned to be procured under FFP contract option, 31 CTDs for ASR-8 operational sites and 3 CTDs for support sites. An additional 12 CTDs were procured with NDP and SIM funding to address additional operational ASR-8 sites.

Target: Common Terminal Digitizer (CTD) - Achieve Initial Operational Capability (IOC) at 1st Microprocessor En-Route Automated Radar Tracking System (Micro-EARTS) site.

Common Terminal Digitizer (CTD) - Achieve Initial Operational Capability (IOC) at 1st Microprocessor En-Route Automated Radar Tracking System (Micro-EARTS) site.

Target: Common Terminal Digitizer (CTD) - Complete Deployment waterfall at all FAA-Owned ASR-8 Sites.

Common Terminal Digitizer (CTD) - Complete Deployment waterfall at all FAA-Owned ASR-8 Sites.

#### **Initiative: En Route Automation Modernization (ERAM)**

ERAM provides automation services for the En Route domain at the 20 Continental United States (CONUS) Air Route Traffic Control Centers (ARTCCs). National support and test capabilities for ERAM reside at the William J. Hughes Technical Center (WJHTC). The FAA Academy provides training services for Technical Operations and Air Traffic personnel. Equipment that constitute the ERAM computing platform must be periodically refreshed to sustain critical National Airspace System (NAS) operations. Much of the original ERAM system hardware and equipment has been in service since 2006-2008 and is now obsolete. The ERAM Sustainment 2 (ES2) program (2016-2022) is a multi-year effort addressing high priority ERAM sustainment issues. The ERAM Sustainment 3 (ES3) Program (2019-2026) is the third major technology refreshment investment of the ERAM system.

#### Activity: En Route Automation Modernization (ERAM) Sustainment 2, G01A.01-10

The ERAM Sustainment 2 (ES2) program is a multi-year effort addressing high priority ERAM sustainment issues. This effort is the second major ERAM tech refresh addressing key sustainment shortfalls, stemming from critical ERAM display subsystem equipment end-of-service life and technology obsolescence. In addition, ES2 will address processing capacity limitations of the backroom data and surveillance processors. Display System (DS) equipment used to control traffic at ARTCCs must also undergo tech refresh. Current equipment used to display air traffic to controllers is based on outdated analog technology and must be replaced with digital display equipment. The Radar (R)-Position and Data (D)-Position processor will be replaced to include an operating system upgrade (LINUX). Related equipment upgrades such as display record/playback software/workstation and R-Position KVM switches are necessary to support the transition from analog to digital display technology.

Target: En Route Automation Modernization (ERAM) Sustainment 2 - Complete Installation of "Full" Equipment Components at Last Remaining ARTCC.

En Route Automation Modernization (ERAM) Sustainment 2 - Complete Installation of "Full" Equipment Components at Last Remaining ARTCC.

#### Activity: En Route Automation Modernization (ERAM) Sustainment 3, G01A.01-11

The ERAM Sustainment 3 (ES3) Program is the third major technology refreshment investment of the ERAM system. The ERAM Sustainment 3 (ES3) program addresses shortfalls stemming from end-of-service life conditions for several key hardware and software components not covered by the System Enhancement and Technology Refresh (SE&TR) or the ERAM Sustainment 2 (ES2) programs. The mission-critical equipment for En Route air traffic management at the ARTCCs is beyond the operational support life cycle or is at end-of-life status and must be refreshed. Much of the original ERAM system hardware and equipment has been in service since 2006-2008 and is now obsolete. At a high level, shortfalls addressed by this next sustainment program includes both component obsolescence and failures as well as processor capacity limitations shortfalls. The targeted scope of this program includes the ARTCC Operations Backroom, Test and Training Lab (TTL), and Support network, WJHTC support maintenance/production facility and Test Labs, and FAA Academy Labs. Specifically, affected hardware include ERAM Enterprise Storage sub-systems, Application LANs, Servers (processors), Workstations and support side Commercial Off The Shelf (COTS) Applications. The execution of the program is planned from 2020 1st quarter through 2026 3th quarter.

Target: Site Exit Brief for Keysite(s) - En Route Automation Modernization (ERAM) Software Release with ERAM Sustainment 3 (ES3) Enterprise Storage System (ESS) functionality.

Site Exit Brief for Keysite(s) - En Route Automation Modernization (ERAM) Software Release with ERAM Sustainment 3 (ES3) Enterprise Storage System (ESS) functionality.

Target: En Route Automation Modernization (ERAM) Sustainment 3 - Complete Keysite Hardware Installation.

En Route Automation Modernization (ERAM) Sustainment 3 - Complete Keysite Hardware Installation.

Target: En Route Automation Modernization (ERAM) Sustainment 3 - Complete 50% of Site Surveys for Enterprise Storage System (ESS) and associated hardware deployment.

En Route Automation Modernization (ERAM) Sustainment 3 - Complete 50% of Site Surveys for Enterprise Storage System (ESS) and associated hardware deployment.

### **Initiative: Enterprise Information Display System (E-IDS)**

The Enterprise Information Display System (E-IDS) will provide an enterprise-level platform that replaces multiple types of Information Display Systems (IDS) in the En Route, Terminal, Traffic Flow and Offshore domains with standard functionality and common hardware/software in a virtualized environment. IDSs are separate from primary displays, and their purpose is to provide Air Traffic Controllers, Front Line Managers, and Traffic Management Coordinators with supplemental but operationally essential information for controlling aircraft. IDSs were introduced in the terminal domain in the 1990's and rely on obsolete technology and interfaces with facilitycentric, inefficient data organization, and manual update methods. Access to information through trusted sources varies from facility to facility depending upon the type of IDS model and whether the facility has a direct interface to source data. The Terminal environment includes three distinct systems, each with a different hardware/software configuration: IDS-4, Automated Surface Observing System Controller Equipment-IDS and NAS Information Display System. En Route includes a system called En Route Information Display System that provides non-tactical information to FAA personnel in Air Route Traffic Control Centers (ARTCC). Traffic Flow domain is present in both Terminal and En Route environments consisting of large monitors that display realtime, high-level traffic and Traffic Flow Management information. The Alaska ARTCC has developed its own IDS, the ATC Automated Information Display. In some cases, vendor-supplied information may be the only source available. These limitations make it cumbersome for users to search, retrieve, and display information. It adds additional workload to both controllers who use the systems and data managers who maintain the systems. Multiple types of information retrieval and display systems create inefficient maintenance activities necessary to sustain all system variations.

Activity: Enterprise Information Display System (E-IDS) Phase 1, A03.06-01 Enterprise Information Display System (E-IDS).

Target: Enterprise Information Display System (E-IDS) - Conduct Display & Mount Evaluation at WJHTC.

Enterprise Information Display System (E-IDS) - Conduct Display & Mount Evaluation at WJHTC.

Target: Enterprise Information Display System (E-IDS) - Conduct Interim Design Checkpoint (IDC) 3.

Enterprise Information Display System (E-IDS) - Conduct Interim Design Checkpoint (IDC) 3.

Target: Enterprise Information Display System (E-IDS) - Complete Installation of Gaithersburg Lab.

Enterprise Information Display System (E-IDS) - Complete Installation of Gaithersburg Lab.

Target: Enterprise Information Display System (E-IDS) Phase 1 - Critical Design Review (CDR) completed.

Enterprise Information Display System (E-IDS) Phase 1 - Critical Design Review (CDR) completed.

#### **Initiative: Terminal Second Level Engineering (TSLE)**

Terminal Second Level Engineering

### Activity: Terminal Second Level Engineering (TSLE)

Terminal Second Level Engineering

Target: National Release of Aegis Encrypted Thumb Drive, System Support Modification (SSM)-Standard Terminal Automation Replacement System (STARS)-300.

National Release of Aegis Encrypted Thumb Drive, System Support Modification (SSM)-Standard Terminal Automation Replacement System (STARS)-300.

Target: National Release of Redhat Maintenance Laptop System Support Modification (SSM) Standard Terminal Automation Replacement System (STARS)-317.

National Release of Redhat Maintenance Laptop System Support Modification (SSM) Standard Terminal Automation Replacement System (STARS)-317.

Target: National Release of Standard Terminal Automation Replacement System (STARS) Software Build S6.R9.

National Release of Standard Terminal Automation Replacement System (STARS) Software Build S6.R9.

Target: National Deployment of Standard Terminal Automation Replacement System (STARS) Archive052821.

National Deployment of Standard Terminal Automation Replacement System (STARS) Archive052821.

Target: Complete initial start up and configuration of Nimble storage system in AJM-24 Secure-Operational Support Environment (Secure-OSE).

Complete initial start up and configuration of Nimble storage system in AJM-24 Secure-Operational Support Environment (Secure-OSE).

Target: National Release of the Standard Terminal Automation Replacement System (STARS) Interactive Technical Publication (IETP) Version 4.

National Release of the Standard Terminal Automation Replacement System (STARS) Interactive Technical Publication (IETP) Version 4.

Target: Conduct the first keysite of Standard Terminal Automation Replacement System (STARS) Software Build S6.R10.

Conduct the first keysite of Standard Terminal Automation Replacement System (STARS) Software Build S6.R10.

#### Initiative: Surface Surveillance Portfolio Sustain 1 (SSPS)

The Surface Surveillance Portfolio Sustain 1 program has developed a portfolio implementation strategy for the technology refresh of Airport Surface Detection Equipment – Model X (ASDE-X), Airport Surface Surveillance Capability (ASSC), and Runway Status Lights (RWSL) systems and subsystems. The Portfolio consists of two programs – ASDE Sustainment and RWSL Sustainment. The portfolio has 36 projects that address aging systems and sensors obsolescence issues, security compliance, depleting spare parts inventory levels, and necessary technological updates. The ASDE Sustainment Program covers 44 airports and 6 support systems. The RWSL Sustainment Program covers 20 airports and 2 support systems

#### Activity: Runway Status Lights (RWSL) Sustainment, S11.01-04

The Runway Status Lights (RWSL) Sustainment program will address maintainability and obsolescence issues associated with RWSL. RWSL is a system that provides situational awareness of runway occupancy without interfering with normal airport operations. RWSL systems reduce the number of runway incursions by indicating to pilots and vehicle operations that the aircraft or vehicle would be in conflict with another aircraft or vehicle if it crossed the hold line or began its takeoff. The system integrates runway lighting equipment with ASDE-X and ASSC surface surveillance systems to provide a visual signal to pilots and vehicle operators indicating when it is unsafe to enter, cross, or takeoff from a runway. RWSL systems are currently operational at 20 airports.

Target: Install Runway Status Lights (RWSL) Field Lighting System (FLS) Master Light Controller (MLC) and Individual Light Controller (ILC) Sustainment equipment at Orlando International Airport (MCO).

Install Runway Status Lights (RWSL) Field Lighting System (FLS) Master Light Controller (MLC) and Individual Light Controller (ILC) Sustainment equipment at Orlando International Airport (MCO).

Target: Runway Status Lights (RWSL) Field Lighting System (FLS) Master Light Controller (MLC) and Individual Light Controller (ILC) Replacement Testing - System delivered to test and evaluation site (MCO).

Runway Status Lights (RWSL) Field Lighting System (FLS) Master Light Controller (MLC) and Individual Light Controller (ILC) Replacement Testing - System delivered to test and evaluation site (MCO).

Target: Release Runway Status Lights (RWSL) Field Lighting System (FLS) Replacement Component Screening Information Request (SIR).

Release Runway Status Lights (RWSL) Field Lighting System (FLS) Replacement Component Screening Information Request (SIR).

#### Activity: Airport Surface Detection Equipment (ASDE) Sustainment, S01.05-02

The ASDE Sustainment program will address maintainability and obsolescence issues associated with ASDE-X and ASSC systems. The existing ASDE-X systems at 35 airports and ASSC systems at 8 airports [1] are surface surveillance systems that use radar, multilateration, and Automatic Dependent Surveillance-Broadcast (ADS-B) to track aircraft and vehicles. By improving situational awareness, these systems help air traffic controllers prevent collisions and reduce runway incursions.

Target: Complete Surface Movement Radar – Raytheon (SMRr) Replacement with Surface Movement Radar – Improved (SMRi) at 1 site.

Complete Surface Movement Radar – Raytheon (SMRr) Replacement with Surface Movement Radar – Improved (SMRi) at 1 site.

Target: Conduct Multilateration (MLAT) Divestiture Safety Risk Management (SRM) Panel.

Conduct Multilateration (MLAT) Divestiture Safety Risk Management (SRM) Panel.

Target: Complete Site Refurbishments on two Airport Surface Detection Equipment – Model 3 (ASDE-3) Remote Towers and Antennas.

Complete Site Refurbishments on two Airport Surface Detection Equipment – Model 3 (ASDE-3) Remote Towers and Antennas.

## **Initiative: Space Data Integrator (SDI)**

The FAA will be deploying an interim operational capability, known as the Minimal Viable Product (MVP) as an operational evaluation under Commercial Space Integration Into The NAS - Space Data Integrator (SDI) program, M55.01-02. The MVP will leverage the existing PoC to validate and refine requirements, while allowing Joint Space Operations Group (JSPOG) to use and act on the data. The SDI program will provide initial capabilities that will receive and distribute launch and reentry data and make it available for NAS automation consumption to allow for improved situational awareness and improved airspace management decision making.

Activity: Space Data Integrator (SDI), M55.01-02

Space Data Integrator

Target: Deploy a software release iteration of the Space Data Integrator (SDI) Minimal Viable Product (MVP) to support new operational procedures for space operations.

Deploy a software release iteration of the Space Data Integrator (SDI) Minimal Viable Product (MVP) to support new operational procedures for space operations.

Initiative: En Route and Oceanic Second Level Engineering Support

En Route and Oceanic Second Level Engineering Support

Activity: En Route and Oceanic Second Level Engineering Support

En Route and Oceanic Second Level Engineering Support

Target: Complete En Route Communications Gateway (ECG) Operational LAN Switch (OLS) replacement (technical refresh) testing.

Complete En Route Communications Gateway (ECG) Operational LAN Switch (OLS) replacement (technical refresh) testing.

# Target: Complete the Hardware installation at the En Route Data Distribution System (EDDS) Tech Refresh (TR) Keysite.

Complete the Hardware installation at the En Route Data Distribution System (EDDS) Tech Refresh (TR) Keysite.

Target: Complete the installation of the Offshore Flight Data Processing System (OFDPS) Sustainment Technical Refresh at the Honolulu Air Route Traffic Control Center (ARTCC) (ZHN).

Complete the installation of the Offshore Flight Data Processing System (OFDPS) Sustainment Technical Refresh at the Honolulu Air Route Traffic Control Center (ARTCC) (ZHN).

# Target: Transition from Pilotweb to the Federal Notice to Airmen (NOTAM) Distribution Service (FNS-NDS) for Jamming and Interference NOTAM data.

Transition from Pilotweb to the Federal Notice to Airmen (NOTAM) Distribution Service (FNS-NDS) for Jamming and Interference NOTAM data.

## Target: Traffic Flow Management System (TFMS) R14 install on B Operational Core B (BOCB).

Traffic Flow Management System (TFMS) R14 install on B Operational Core B (BOCB).

#### **Initiative: NAS Voice Recorder (NVR)**

The NAS Voice Recorder (NVR) program will replace the aging digital voice recorders with a Commercial Off The Shelf (COTS) product that will resolve end-of-life supportability issues as well as provide improved digital voice recording functionality to meet new validated safety and audit requirements.

## **Activity: NAS Voice Recorder (NVR)**

The NAS Voice Recorder (NVR) program will replace the aging digital voice recorders with a Commercial Off The Shelf (COTS) product that will resolve end-of-life supportability issues as well as provide improved digital voice recording functionality to meet new validated safety and audit requirements.

## **Target: NAS Voice Recorder (NVR)**

Achieve In-Service Decision (ISD) for National Airspace System (NAS) Voice Recorder (NVR).

## **Target: NAS Voice Recorder (NVR)**

Completion of Independent Operational Assessment (IOA) for National Airspace System (NAS) Voice Recorder (NVR).

## Initiative: Engineering and Infrastructure Services

Develop Architecture Review Boards packages.

#### **Activity: Enterprise Engineering and Infrastructure Services**

Develop Architecture Review Boards packages.

#### **Target: Architecture Review Board Meetings**

Communications, Information, and Network Programs (CINP) will complete 12 Enterprise Infrastructure Solutions (EIS) Assessments and 6 CINP Architecture Review Board meetings.

## **Activity: National Cloud Integration Service (NCIS)**

Create initial commoditized costing guide for PMO Cloud Services.

## **Target: National Cloud Integration Service (NCIS)**

Establish connectivity, support, and security methodology for an Operations Internet Protocol (OPS IP) cloud that satisfies the principles identified in this new operating environment.

#### **Initiative: FTI Sustainment**

FTI Sustainment

#### **Activity: FTI Sustainment**

FTI Sustainment

## Target: FAA Telecommunication Infrastructure (FTI) Sustainment 2

Complete FAA Telecommunication Infrastructure (FTI) Sustainment 2 Joint Resources Council (JRC) decision.

## Target: FAA Telecommunication Infrastructure (FTI) Sustainment 1

Complete Implementation of Obsolescence Components.

#### Initiative: New York TRACON (N90) Training Implementation

Implement training at New York TRACON (N90).

#### **Activity: Training Programs at N90**

Collaborate with AJI and PMO to implement training programs at N90.

#### **Target: Develop curriculum**

Conduct Technical Training of personnel to build, teach and continuously update New York TRACON's training materials.

#### **Target: Monitor and Improve**

Continuously monitor the training program, starting with Academy training, and gather feedback that will help derive necessary adjustments to meet the Agency goals.

#### Initiative: Improved Service Through Advanced Technology

Deliver safe, efficient, cost-effective flight services and airspace system services by leveraging advanced and emerging technologies.

## Activity: Plan the future of Flight Service operations in Alaska

Enhance operational effectiveness in Alaska Flight Service to meet user preferences by maximizing processes, people, and information delivery.

## **Target: Installation of Multi-Touch Electronic Flight Strips (MTEFS)**

Complete the installation of Multi-Touch Electronic Flight Strips (MTEFS) at nine Alaska Flight Service Stations.

#### Target: Expand FAA Weather Camera Operations to Hawaii

Complete installation of 10 weather camera facilities in Hawaii. Host weather camera images on the FAA Weather Camera public website for access to the general aviation community.

# Target: Future Flight Service Program Voice Communication System (VCS) Interoperability Test (IOT)

Completion of IOT for the FFSP VCS connectivity to the FAA's digital voice communication infrastructure.

## **Target: Alaska Flight Service Training Operations**

Expand the number of Alaska Flight Service Training Academy classes to no less than five (5) in FY22.

#### **Target: OASIS II Two Way Communications**

Complete the implementation of the Two-Way Communications enhancement.

# Target: Future Flight Service Program (FFSP) Voice Communication System (VCS) Limited Deployment

Completion of Limited Deployment predecessor activities to demonstrating initial operating capability of FFSP voice communications via connection to the FAA's Air to Ground Media Gateways (AGMGs) at designated ARTCCs.

## **Activity: Enterprise System Operational Contingency Plan**

Begin initial development of the enhanced Operational Contingency Tool which will improve OCP documentation, event reporting, certifications, exercises, collaboration and information sharing.

## **Target: Operational Contingency Tool Award**

Finalize contract award and begin initial development activities for the Operational Contingency Tool. Report monthly on progress.

## **Initiative: Collaborative Traffic Flow Management**

Deliver outstanding traffic flow management in a collaborative environment for our stakeholders and customers.

## Activity: FIELD LEADERSHIP Critical Planning and Operational Capacity and Efficiency Performance Review

Provides leadership to ensure NAS efficiency and safety issues are identified and prioritized on behalf of the ATO for appropriate action. Evaluates system performance and provides findings and recommendations to all pertinent ATO managers and ATO senior leadership. Coordinates with key representatives of the ATO, the military, other federal agencies, state and local governments, the aviation industry, the regulatory organizations of the FAA and the general public on traffic management and operational issues.

## Target: East North Corridor - Promote and evaluate Improvements to Safety and Efficiency

As volume returns to normal levels, we will work closely with the East North Facilities to identify areas of opportunity to reduce Miles in Trail (MIT) / Minutes in Trail (MINIT) restrictions and reduce stringency to optimize the performance of the NAS.

#### **Target: East South Corridor - Special Event Planning**

Work with field facilities to ensure ideal Traffic Management Strategies are in place for efficient movement of air traffic. Coordinate/facilitate plans for special events throughout the East-South. Monitor the increased Rocket Launches that impact route closures.

## Target: Maintain Safety and Efficiency at LAX during rehabilitation of Taxiways B, C and D.

Assist Los Angeles District facilities in determination of impacts to traffic at Los Angeles International Airport (LAX), development of contingency procedures and facilitate communication with aviation user groups. Monitor and report on overall effect of rehabilitation activities.

# Target: Promote efficiency at Chicago O'Hare International Airport (ORD) during ongoing stages of the Chicago O'Hare Modernization Program (OMP).

Assist Chicago District facilities in determining effect OMP will have on rates at ORD and facilitate communication with aviation user groups to include the monthly Chicago Focus Group. Monitor and provide reports of overall effect on efficiency at ORD.

## **Target: Efficiency and Special Event Planning**

Assist the Los Angeles District in the planning and execution of initiatives for the increased traffic in the Los Angeles Basin and Las Vegas due to Super Bowl LVI.

## **Activity: Oversight and Management of the National Airspace System (NAS)**

Management of the NAS to ensure safe and efficient use of available airspace, equipment, and workforce resources. Responsible for planning, directing, implementing, overseeing, and continuously monitoring all programs related to air traffic control systems used by the FAA at the Air Traffic Control System Command Center (ATCSCC) and throughout the United States. Oversees and manages the establishment of program directives, policies, standards, strategies, plans, quality assessments and management methods to support the operational requirements (current and future) of national and international flight operation while collaborating with aviation stakeholders for the conduct of business. The ATCSCC supports national defense activities as well as security initiatives to ensure stakeholders are timely apprised of pending changes.

## **Target: NAS Oversight and Management**

Ensure effective execution of DCC mission and timely communication on the status of the NAS with FAA management and NAS stakeholders.

#### **Activity: Quality Control Operational Review and Analysis**

Review the operation on a daily basis to identify quality control issues that may impact system efficiency. Analyze data from sources including but not limited to: daily logs, voice recordings, FAA Tactical Operations (TACOPS) replays, NAS Operational Display (NOD), Traffic Flow Management System (TFMS) tools, Air Traffic Operations Network (OPSNET), Aviation System Performance Metrics (ASPM), and interviews with operational personnel.

## **Target: Post Event and Daily NAS Analysis**

Conduct and prepare Post Event and Quality Assessments of air traffic management services. Identify areas to continually improve the safety and efficiency of the NAS. Moderate the National System Review responding to customer comments. Improve the ATCSCC performance through the QC process with validations and checks in accordance with FAA Orders.

#### **Activity: NAS Directives and Procedures Management**

Ensure agency directives, Letters of Agreement (LOA) and Standard Operating Procedures (SOP) are reviewed and updated for accuracy and compliancy with FAA Orders. Determine if a Safety Risk Management (SRM) analysis is required in compliance with the Safety Management System (SMS) and the Air Traffic Operations (ATO) Safety Guidance Order JO 1030.1A. Attend directive development and SRM meetings and conferences.

## **Target: Review and Update Facility Directives**

Review and update Facility Directives, Letters of Agreements (LOA's), Standard Operating Procedures (SOP's), Safety Risk Management (SRM) updates etc., to ensure policies and procedures are documented and that changes are generated to reduce workload, comply with federal regulations, DOT orders/policies, and to maintain and improve the safety and efficiency of the NAS.

## **Target: Update Appropriate Notices/Orders**

Update appropriate Notices/Orders to ensure Systems Operations is procedurally included in the coordination of Commercial Space events so that accurate systems impacts can be assessed and system safety ensured.

# Activity: Provide National Traffic Flow Management (TFM) Training and Educational Briefings

Conduct National Traffic Flow Management (TFM) educational Training, briefings, and tours to educate aviation employees, leaders and stakeholders.

## Target: Provide National Traffic Flow Management (TFM) Training and Presentations

Provide 50113 Formal Traffic Flow Management (TFM) training and presentations inhouse and virtually. Conduct Traffic Flow Management (TFM) guided facility tours and briefings to FAA personnel, non-FAA individuals, and groups with an aviation interest to improve agency information exchange and increase operational awareness of the Air Traffic Control System Command Center.

## **Activity: ATCSCC Simulation Training**

Simulation training is critical to ensure ATCSCC trainees are exposed to NAS demand and weather conditions that require actions such as Ground Delay Programs, Ground Stops, Airspace Flow Programs and reroutes. Simulation training reduces operational risks and allows the student to practice repetitive processes in a safe environment to build knowledge, skills, and abilities.

## Target: Provide National Traffic Flow Management (TFM) Training and Presentations

Provide guidance and documentation as requested by the Civil Aerospace Medical Institute (CAMI) to facilitate the Flight Schedule Monitor and Traffic Situation Display simulation deliverables.

#### **Activity: Integration of Security Operations**

Provide safe, efficient, and secure air traffic control and traffic management services to system stakeholders: Provides safe, efficient and secure air traffic management services; balancing safety and security with capacity and demand throughout the NAS. Collaborates with domestic and foreign system stakeholders to plan and regulate the flow of air traffic to minimize delays and congestion while maximizing overall efficiency.

## **Target: Ensure and Oversee ALTRV Requests**

In collaboration with Department of Defense (DoD) and Air Traffic Services (ATS) plan, coordinate, and obtain approval for Altitude Reservation (ALTRV) requests. Ensure ALTRV requests within the NAS are approved according to guidelines.

## Activity: Expand Advanced Planning to Surrounding Air Navigation Service Providers (ANSP's), Facilities and Stakeholder

Continue to advance the PERTI principles by expanding advanced planning to surrounding ANSPs, FAA Facilities and stakeholder organizations.

## Target: PERTI - Include surrounding ANSPs in Advanced Planning Processes

Continue to include and expand surrounding ANSPs involvement in the Advanced Planning process.

#### **Target: Improve Stakeholder Engagement**

Coordinate monthly with the Stakeholder Engagement Team (SET) on analysis/review activities for potential process improvement.

#### **Target: PERTI Website**

Work with MITRE on development of additional features and improvements to the DCC Continuous Planning website to provide enhanced continuous planning operations information to field facilities and stakeholders.

#### **Activity: ATCSCC Trajectory Based Operations (TBO)**

Refine/update DCC procedures, training and operational floor layout for next phase of TBO.

## Target: Expand and integrate Trajectory Based Operations (TBO) processes and procedures

The Air Traffic System Command Center (ATCSCC) will expand and integrate TBO operations/management/process and procedures. Site specific Time-Based Flow Management (TBFM) training will be developed for ATCSCC personnel. Establish draft/update operational floorplan. Draft/update operational procedures for terminal and severe weather specialists. Schedule and complete regular meetings with the program office to establish a standalone TBFM Facility operations string, appropriate equipment needed to conduct future training and operations. Draft and validate TBFM site specific course material. 7210.3CC/7210.65/7210.55 will continuously be updated to ensure appropriate TBO language is incorporated to align with current ATO/NAS Objectives.

## **Activity: Development/Improvement of airspace system tools**

Automation and integration of services will be used, as well as on exploring current and emerging technologies such as cloud computing, AI, machine learning, and serverless computing to enhance the efficiency and efficacy of Sys Ops data and analysis products. All activities under Goal #1 will be supported by sound business processes focused on planning, budgeting, and execution of funds and support contracts.

## Target: Traffic Flow Management System (TFMS) development/improvement

Provide leadership for Traffic Flow Management Deployment Team, Operational Testing & Evaluation simulation and Key Site Acceptance Test for Release 14 - Oct 2021 and Release 15 - Oct 2022. Coordinate critical patches for Departure Spacing Program (DSP) and New York facilities - Oct 2021. Collaborate with NAS and ATO stakeholders on system enhancements involving Time-Based Flow Management (TBFM), Terminal Flight Data Manager (TFDM), Flow Management Data and Services (FMDS), and TFMS sustainment.

## **Activity: Contingency Planning**

Support and assist AJR-X with Contingency Plan development and implementation.

## Target: Contingency Plan Support System (CPSS)

Develop and sustain Contingency Plan Support System routings.

## **Target: Exercise Contingency Plan(s)**

As a minimum, complete a contingency exercise quarterly.

## **Activity: Global Collaborative Decision Making**

Provide leadership to the Global Collaborative Decision Making process. Support a customer-focused, safe, efficient, and affordable air transportation system that is environmentally responsible. Support global understanding and acceptance of the FAA mission, operations, and Air Traffic Organization modernization efforts. Promote global, regional, and cross-border acceptance of U.S. Air Traffic Management technology, procedures and processes. Provides joint government/industry initiative aimed at improving air traffic management through increased information exchange among the various parties in the aviation community. Oversees the Collaborative Decision Making program made up of representatives from government, general aviation, airlines, private industry and academia who are working together to create technological and procedural solutions to traffic flow problems that face the National Airspace System.

## **Target: Flight Data Exchange Assessments**

Support the development of flight data exchange agreements between the FAA and other Air Navigation Service Providers (ANSP) through bilateral meetings as requested.

#### **Activity: Provide Leadership to Collaborative Decision Making**

Ensure airport and airspace capacity are more efficient, predictable, cost-effective, environmentally sound, and matched to customer needs by providing leadership to Collaborative Decision Making (CDM) processes. Develop tools, guidance and procedures that match system capacity, efficiency and predictability to user demands while improving safety, accessibility while increasing the capacity of the nation's aviation system.

## **Target: Provide ATFM Operational Expertise**

Provide provision of operational expertise for Air Traffic Flow Management (ATFM) software development, testing (i.e., Human in the Loop, End to End), Operational Testing & Evaluation (OT&E) simulation and Key Site Acceptance Test (KSAT) through the Collaborative Decision Making (CDM) Steering Group (CSG) process. Conduct CDM sub-team meetings to ensure projects provide efficient and cost-effective improvements to the NAS.

## Target: Revise Leadership Activities – VP+1, National Customer Forum, Collaborative Decision Making

Revise/rework the leadership communication and collaborative stakeholder processes. The VP+1, NAS Collaboration Forum (NCF), and Executive Committee monthly meetings will all have specific agendas, objectives and processes, meeting goals and eliminating overlap.

## **Target: Strategic NAS Efficiency**

Proactively identify gaps in system efficiency and develop new technologies and tools to improve operational performance. Collaborate with various user groups to include MITRE, Performance Analysis, NextGen, i Time Based Operations and other internal and external stakeholders to develop products that will improve NAS efficiency over the next several years.

## **Target: Tactical NAS Efficiency**

Improve NAS efficiency on initiatives identified by the VPs of the ATO (Focus Five Efficiency Initiatives) and ad hoc initiatives identified by the Director of System Operations. Collaborate with AJT, ATSCC, AJR-G, DDSOs and other internal and external stakeholders to develop mitigations to efficiency short falls in the system in the near term. This initiative should target efficiency goals that can be accomplished within the next year.

## **Activity: Provision of Real Time Operational Data**

Provide near real time and post operation traffic flow management data and analytical products to inform/improve the operation with actionable information.

## Target: Streamline AJR-G Data and Reporting Systems

Identify Low Use or Duplicated Reporting and Establish Timeline for Sunsetting legacy data/tools.

## **Activity: Improved Operations Plan to Stakeholders**

FAA provides stakeholders information on anticipated Traffic Management initiatives through the PERTI Plan the day prior to operation and though updates to the Operational Plan on day of operation. These plans are supported through regularly scheduled telcons with operators. Going forward, operators have requested more details in the plans that include runway configuration and rates. There is also an operational goal to have the both the advanced plan and operations plan updated more frequently.

## **Target: Release Update to PERTI Planner**

Deliver new updates to Plan Execute Review Train Improve (PERTI) Planner based on FY22 requirements.

#### **Target: Continuous Plan Accuracy Reports**

Develop capability for reporting the accuracy of FAA planning information using data recorded by the Continuous Planner.

#### **Activity: Effective Slot Administration**

Slots, or limits on the planned aircraft operations, are a tool used in the United States and around the world to manage air traffic at extremely busy airports, and to prevent repeated delays that result from too many flights trying to take off or land at the same time. Aviation performance therefore depends on effective Rulemaking supported by thorough analysis. Effective administration is also enhanced by an ability to monitor and report how well operators comply with their assigned slot times.

#### **Target: Slot Rulemaking**

Submit Rulemaking Application on Slot Management to Rulemaking Management Council.

#### **Target: Slot Compliance Tracking**

Deliver compliance tracking for Slot controlled airports with improved Air Carrier Identification.

#### Activity: Develop an After Event Review (AER) "Hotwash"

Improve contingency trends and metric data by developing an After Event Review.

#### **Target: Tier 1 Facility Contingency Events Process**

Develop process and procedures for conducting analysis and review of specific contingency events at Tier 1 facilities.

#### Activity: Short-term, Pre-Divestment ARTCC ATC-Zero Events Conceptual Solution

Collaboratively identify and validate short-term contingency routes through ATC Zero impacted airspace prior to airspace divestment.

## **Target: Establish Operational Contingency Routes**

Collaboratively identify existing NAS surveillance and communications capabilities to establish operational contingency routes and supporting local procedures at six (6) ARTCCs to provide continuous air traffic services through ATC-Zero impacted airspace prior to executing divestment actions.

#### **Initiative: Integrated Command and Control**

Improve air traffic control operations by developing an integrated command and control capability for the NAS.

#### **Activity: JATOC Coordination**

Joint Air Traffic Operations Command (JATOC) creates a single stream of operational reporting of events and air traffic incidents in the NAS to ATO leadership via information sharing.

#### **Target: JATOC Training**

Provide ongoing familiarization training to on-boarding Joint Air Traffic Operations Command (JATOC) personnel with a more comprehensive training provided to all those standing watch as ATO Watch Officers. Training for SkyWatch, the JATOC shared communications platform, is being provided to the appropriate personnel. A Communication/Facilitation workshop and Building Leadership Capacity training module is available to all JATOC personnel. The JATOC Training Order is in the process of being finalized.

## **Target: JATOC Conduct Improvement Exercises**

Conduct exercises with JATOC elements to evaluate preparedness and to emphasize cross-functional roles and responsibilities during and after events. Goal is to complete 60 exercises per year, 15 per quarter to take action steps to address areas for improvement, and the need to review and revise current procedures.

#### **Initiative: Integration of New Entrants**

Enable new entrants to access and utilize the NAS successfully while efficiently maintaining optimal safety and security.

#### **Activity: Integrate New Space Entrants**

Safely and efficiently, integrate new types of commercial space operations into the NAS and support the industry activities these operators present. Access and implement a planning and management process that supports improved integration of current space operations, including the strategic vision and collaborative solutions to operational conflicts. Use Traffic Flow Management System time based capabilities to improve efficiency gains.

## **Activity: Integrate Commercial Space Transportation into the NAS**

Develop and implement Time-Based Launch/Reentry Procedures (TBLP) and Dynamic Launch/Reentry Windows (DLRW) for integrating launch complex commercial space launch and reentry operations into the National Airspace System (NAS).

# Target: ATO Space Operations collaborates with industry partners and other stakeholders to streamline mission planning process

Mature and evolve the pre-mission planning space operations portal by completing four releases.

# Target: ATO Space Operations collaborates with industry partners to understand, evaluate and define the metrics of Operators

Launch Space Operations Committee (SpOC) that includes inter and intra-agency partners.

## Target: ATO Space Operations collaborates with industry partners to understand mission needs

Conduct visits to Industry Operator locations to foster better operational understanding and collaboration.

# Target: ATO Space Operations utilizes CARF capabilities to manage and support Upper Class E Operations

Complete tabletop with Central Altitude Reservation Function (CARF) and an Upper Class E operator, to explore and evaluate feasibility for CARF to provide strategic deconfliction in Upper Class E Airspace.

#### **Initiative: Data-driven Operational Efficiency**

Increase operational efficiency through innovative performance analysis, data management, and system integration.

#### **Activity: Field Office Analytical Support**

Fields offices as well as the four Deputy Directors of Systems Operations (DDSO) require analytic support and performance tools for conducting next day reviews and assessments of upcoming events that are anticipated to affect system performance.

## **Target: Efficient DDSO Reporting**

Provide updated DSSO support based on FY22 requirements.

#### **Activity: 2021 NAS Initiatives**

For past several years, FAA senior leadership in collaboration with airlines have established annual goals for improving operational performance in the system. This has included goals such as improving departure throughput for New York airports as well as reducing miles in-trail restrictions by a target percentage. This activity will develop reporting tools used to track the FAA/Airline Initiatives for 2021.

#### Target: Base Processing Trajectory Capability

Deliver Base Requirements necessary to support AJR-G reporting tool and Analysis.

#### **Target: Base Processing Trajectory Capability**

Deliver Validation Reports for Delivered Base Processing Data Tables.

#### **Activity: Traffic Forecasting Tools**

FAA Planning requires analytical tools to provide the best estimate of traffic levels for next day planning or for strategic planning that looks ahead a month or longer term for a busy season such as summer or for winder destinations known as "Snowbird Traffic". This activity delivers traffic projections for end users that meet 2021 requirements.

#### **Target: NAS wide Near Term Projection Forecast**

Deliver Forecast Scoring Accuracy Report.

## **Target: NAS wide Near Term Projection Forecast**

Consolidate Office Forecast Capabilities.

#### **Activity: Mitigating Capacity Constraints**

Operational performance and the need to Traffic Management Initiatives is largely driver by demand/capacity imbalances. A portion of these are tactical and depend on daily variation of the weather and some are planned due to events such a runway construction. This activity assesses capacity constraints for planned activities. As required, the activity will assess benchmark capacity rates published for different operation conditions.

#### **Target: Capacity Constraint Analysis**

Deliver 3 assessments of Capacities to support facility construction, procedural changes etc.

#### **Activity: DOT Reporting Metrics**

AJR-G is responsible for several metrics that have required reporting to the Department of Transportation or are tracked due to pay for performance targets. These include the Average Daily Capacity Metric, NAS On-Time Arrivals and On-Time Arrivals.

#### **Target: Average Daily Capacity**

Maintain an Average Daily Airport capacity of at least 58,962 arrivals and departures at Core airports.

## **Target: Achieve NAS On-Time Arrivals**

Achieve a NAS on-time arrival rate of 88% at Core airports and maintain through FY 2022.

#### **Target: Monitor On-Time Arrivals**

Monitor On-Time Arrival rates at Core airports.

#### **Target: Enhance Airport Capacity Modeling**

Enhance Airport Capacity tools to include more advanced weather and TMI modeling.

#### **Activity: Improved Quality and Standardization**

Performance Analysis (AJR-G) data and reporting tools support a diverse and growing array of end users from the Executive level to the field facility. Given the overlap in reporting for different users, there is a need for added oversight to insure efforts do not duplicate and report products give consistent results. To have confidence and to reduce costs associated with analysts reconciling errors in the data, this activity will perform validation testing on AJR-G performance reporting tools. It will also develop and staff a process for insuring all morning reports have completed with testing performed that assesses the accuracy and completeness of the data.

#### Target: Quality and Standardization Validation/Verification

Produce validation for 3 Performance Analysis reporting tools.

## **Target: Morning Report Validation**

Initiate Morning Quality Check on Performance Analysis Services.

#### **Activity: Weather Impact Metrics**

Most impact to NAS users in terms of delay, diversions and cancelations is due to adverse weather that reduces capacity and throughput in the system. Many resources are spent on developing both strategic and tactical plans to respond to weather and the limits of weather prediction accuracy. Performance analysis then depends on parameterizing actual and forecast weather impact metrics into performance reporting.

## **Target: Enroute Weather Scoring Metric**

Integrate Weather Traffic Scoring metrics into Performance Reporting Dashboards.

#### **Activity: Streamline Reporting Processes**

Performance Analysis supports many different systems for reporting flight counts and reporting metrics either through tools or standardized reports. Over time, some systems require are replaced by other reports. Streamlining or taking older reports out of service requires coordination with the affected offices while continued maintenance adds to cost and is not sustainable. Fields offices as well as the four Deputy Directors of Systems Operations (DDSO) require analytic support and performance tools for conducting next day reviews and assessments of upcoming events that are anticipated to affect system performance. These also need to be coordinated and streamlined where necessary.

#### **Target: Streamline Performance Analysis Data and Reporting Systems**

Complete the streamlining of the morning reporting process.

## **Target: Efficient DDSO Reporting**

Deliver report with recommendations to standardize and streamline Deputy Director System Operations (DDSO) reporting for reviews and assessments.

## **Activity: Improved Data Provision**

FAA performance analysis utilizes data from several different sources including OPSNET, National Traffic Management Log (NTML) and the Traffic Flow Management System (TFMS). In 2020, performance dashboards were developed using other specialized data streams from TFMS, Time Based Flow Management (TBFM) and Surface Surveillance data. Performance Analysis will integrate the different data and reporting systems into an integrated collaborative operations research environment one single comprehensive operational analysis system. In addition to traffic data and data recording FAA actions, performance analysis also requires linkages to weather data, and sources that record outcomes such as delay, diversions and cancellations. Given the complexity of these sources, FAA will seek to improve system performance and scalability through the use of enterprise platforms such as Cloud Computing and Enterprise Information Management (EIM) Machine Learning. The task will promote the use of a Collaborative Research Environment (CRE) that will allow developers access to common data tables and insure consistency across development efforts.

## **Target: Base Processing Requirements**

Deliver Report detailing the requirements for Base Processing that would allow current dashboards to transition from legacy tables to new Base Processing tables.

#### Target: Master Flight Metrics FY22 Targets Report (Wilbur)

Deliver report specifying the Master Flight Tables capabilities that Performance Analysis will deliver for FY22

## **Target: Master Flight Metrics Database (Wilbur)**

Deliver Master Flight table for use that allows AJR-G to transition existing tools to the new data provided by Wilbur.

#### **Target: Base Processing Validation**

Deliver report that assesses the consistency of the delivered base processing tables to existing legacy tables.

## **Target: MVP2 Definition for OPSNET-R**

Establish requirements and a roadmap for the improvement and replacement of the legacy Operations Network (OPSNET) and Performance DATA and Reporting System (PDARS) systems, including the identification of post-MVP1 milestones in partnership with the Program Management Organization and the Rapid Development and Deployment ("RDD") methodology.

#### **Target: Modernized AJR Collaborative Research Environment**

Establish a System Operations (AJR) collaborative operations research environment in partnership with Enterprise Information Management (EIM) platform, MITRE, and the NAS Data Warehouse to enable an analytical platform with access to an expanded data portfolio.

## **Activity: Improved Analytical Capabilities**

FAA Planning requires analytical tools to provide the best estimate of traffic levels for next day planning or for strategic planning that looks ahead a month or longer term for a busy season such as summer or for winder destinations known as "Snowbird Traffic". This activity will develop an accuracy score that will represent the performance of the forecast at each facility for each date forecasted. This will serve as a reliability index for users of the forecast. Presently, there are two forecast tools managed by Performance Analysis, NASCast and the SnowBird Tool. This activity will consolidate both tools into one reliable tool that provides daily updates, anticipates seasonal changes, and incorporates impacts by specials events. In addition to traffic forecast, this activity will deliver new capabilities for assessing flights affected by miles in trail restrictions and abilities to assess filed flight plans against actual flown trajectories.

## **Target: Forecast Scoring Accuracy Report**

Deliver Forecast Scoring Accuracy Report.

#### **Target: Consolidate Office Forecast Capabilities**

Consolidate Office Forecast Capabilities.

## Target: Flights Affected by Miles-in-Trail Capability

Produce Flights Affected by Miles-in-Trail restrictions capability to be used for office reporting.

## Target: Filed vs. Flown Efficiency Reporting

Deliver capability for assessing differences between filed flights plans and flown trajectories.

#### **Activity: Improved Reporting Tools**

For past several years, FAA senior leadership in collaboration with airlines have established annual goals for improving operational performance in the system. This has included goals such as improving departure throughput for New York airports as well as reducing miles in-trail restrictions by a target percentage. This activity will develop reporting tools used to track the FAA/Airline Initiatives for 2022. In addition, integrated dashboards will be developed with other FAA lines of business such as Technical Operations and Safety. TMI reporting tools used for advanced planning and evaluation will be updated and streamlined to remove redundancy. Simulation capabilities will be improved to include more complex weather and the ability model delays from Ground Stop (GS) and Ground Delay Programs (GDPs).

## **Target: Integrated ATO Performance Reporting**

Develop integrated reporting for different ATO Service Units.

## **Target: VP+1 Initiative Reporting**

Develop or enhance existing tools to support VP+1 Reporting.

## **Target: PATH/TMI Assessment Streamlining**

Deliver plan for streamlining TMI Assessment Capabilities.

#### **Target: Enhance Airport Capacity Modeling**

Deliver updated Simulation that models complex weather, GS and GDPs.

## **Activity: FAA Metric Reporting**

Performance Analysis is responsible for delivering performance reports to management on a daily, weekly and monthly basis. This activity will deliver updates to these reports based on management priorities. This activity will deliver analytical reports for periodic meetings and briefings (e.g. the Quarterly (COO) Reporting) as well as for customer ad hoc requests regarding flight counts, trends, and other analysis. It will create a calendar of reporting events to provide awareness for all team members. Operational performance and the need for Traffic Management Initiatives is largely driven by demand/capacity imbalances. A portion of these are tactical and depend on daily variation of the weather and some are planned due to events such a runway construction. This activity assesses capacity constraints for planned activities. As required, the activity will assess benchmark capacity rates published for different operation conditions.

## **Target: Data Analytics Reports and Briefings**

Deliver updates and improvements to FAA daily, weekly and monthly performance reports.

## **Target: Capacity Constraint Analysis**

Deliver 3 assessments of Capacities to support facility construction, procedural changes etc.

## Initiative: Air Traffic Services Message Handling System (AMHS)-System Wide Information Management (SWIM) Gateway

Operate the world's most efficient aerospace system through daily execution, continuous improvement and infrastructure investment.

# Activity: Air Traffic Services Message Handling System (AMHS)-System Wide Information Management (SWIM) Gateway

Operate the world's most efficient aerospace system through daily execution, continuous improvement and infrastructure investment.

# Target: Air Traffic Services Message Handling System (AMHS)-System Wide Information Management (SWIM) Gateway

Implement Air Traffic Services Message Handling System (AMHS) -System Wide Information Management (SWIM) Gateway (ASG) with National Weather Service to allow international exchange of International Civil Aviation Organization (ICAO) Meteorological Information Exchange Model (IWXXM) data.

## **Initiative: Carrier Ethernet Connectivity with NAV Canada**

Operate the world's most efficient aerospace system through daily execution, continuous improvement and infrastructure investment.

## **Activity: Carrier Ethernet Connectivity with NAV Canada**

Operate the world's most efficient aerospace system through daily execution, continuous improvement and infrastructure investment.

## **Target: Carrier Ethernet Connectivity with NAV Canada**

Implement Carrier Ethernet connectivity with NAV Canada to replace existing, Time Division Multiplexing (TDM) connections.

# Initiative: Enterprise Service Monitoring (ESM) National Airspace Enterprise Messaging Service (NEMS) ActiveMQ to Solace Migration

Operate the world's most efficient aerospace system through daily execution, continuous improvement and infrastructure investment.

## Activity: Enterprise Service Monitoring (ESM) National Airspace Enterprise Messaging Service (NEMS) ActiveMQ to Solace Migration

Operate the world's most efficient aerospace system through daily execution, continuous improvement and infrastructure investment.

# Target: Enterprise Service Monitoring (ESM) National Airspace Enterprise Messaging Service (NEMS) ActiveMQ to Solace Migration

Complete migration of the System Wide Information Management (SWIM) Enterprise Service Monitoring (ESM) producer and consumer applications from the legacy National Airspace System (NAS) Enterprise Messaging Service (NEMS) interface to the new Solace appliance interface.